

MUNGER AFRICANA
LIBRARY NOTE

Johanna $\frac{2.00}{5}$ Sept 2 1862
Jany

Dear Admiral Washington

We shall leave Proxima
about the beginning of Dec 2
for this & Zambezi and
hope to report success. You
need say nothing to you
about our anxiety to get an
outlet of our own to Lake
Nyasa -

Yours Dear Sir
Most Truly Yours
David Livingstone

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MUNGER AFRICANA LIBRARY NOTES

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DAVID LIVINGSTONE ON THE ZAMBEZI:
LETTERS TO JOHN WASHINGTON, 1861-1863

Edited by

Gary W. Clendennen

Mr. Clendennen has been doing research on behalf of the David Livingstone Documentation Project, working in the Manuscripts Department of the National Library of Scotland.

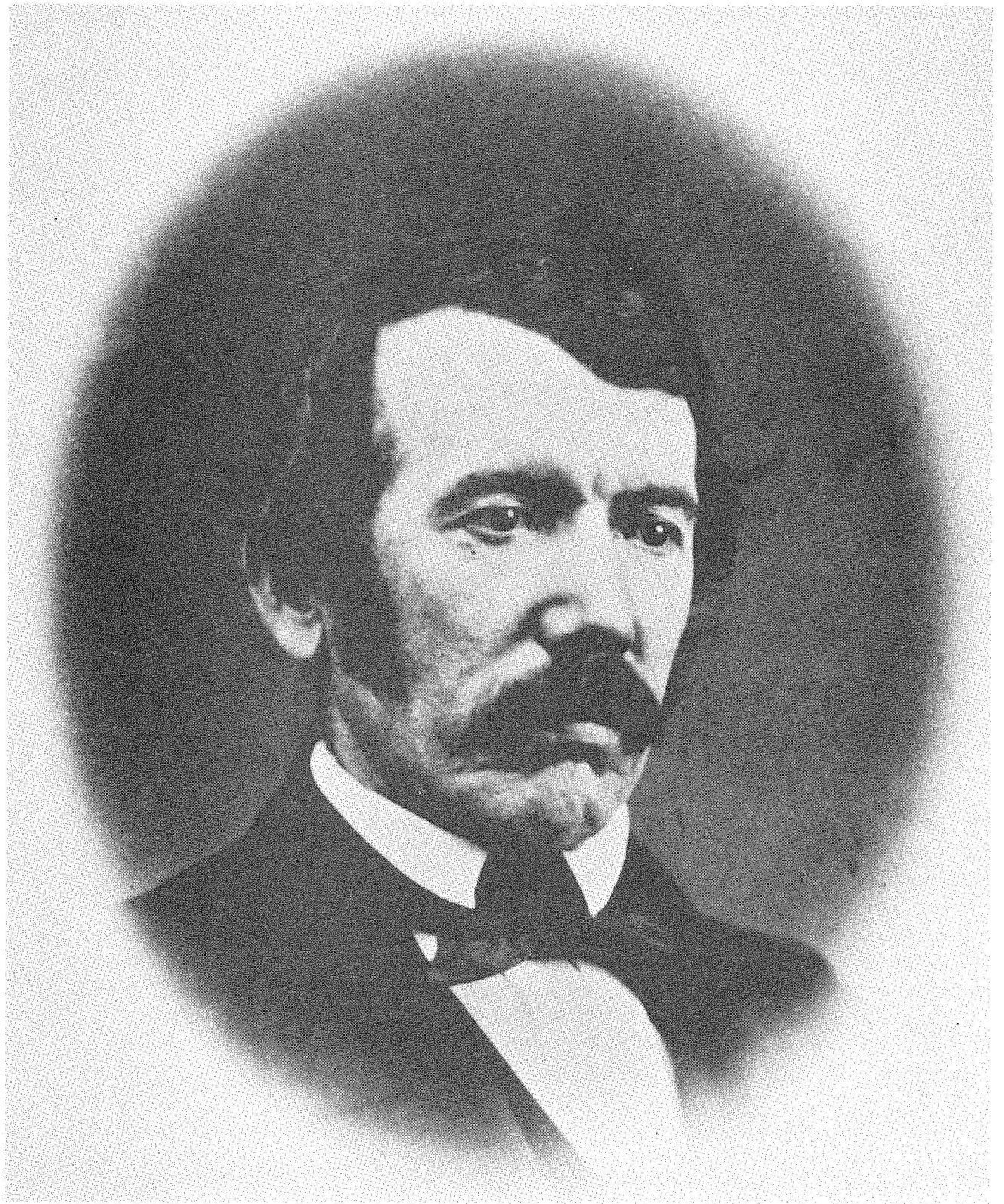
We are grateful to Mr. Clendennen for preparing the introduction to these letters while he was fully engaged in research on Livingstone in Scotland and in southern Africa. We would also like to thank Professor George Shepperson, of the University of Edinburgh, and Donald L. Simpson, F.L.A., Librarian of the Royal Commonwealth Society in London, for their invaluable assistance and advice.

DAVID LIVINGSTONE ON THE ZAMBEZI:
LETTERS TO JOHN WASHINGTON, 1861-1863

Background: the Zambezi Expedition, 1858-1860.

At the beginning of 1861, David Livingstone and his companions were an exhausted and bedraggled band of men, who for the moment were recovering from a minor disaster--minor in the sense that it was hardly unexpected and had, in fact, been long overdue. On 21 December the "MaRobert," the vessel which had served the Zambezi Expedition for 2-1/2 years, and which Livingstone usually referred to as the "Launch," or more poignantly, the "Asthmatic," ran aground in the lower Zambezi a short distance upriver from the Portuguese settlement of Sena. The following day saw the vessel almost entirely under water, but not before the men had removed most of their gear and had begun transporting it downstream. By 4 January, Livingstone and his party had assembled at the Kongone Canal in the Zambezi delta, awaiting the arrival of a new vessel from Britain. Although the "MaRobert" had been especially constructed for his needs, Livingstone realized early on that it was inadequate for his purposes, and had requested that another ship be sent out for him. As he expected it to arrive in January 1861, the demise of the "MaRobert" was hardly a moment too soon. In addition to the "Pioneer" and its complement of four officers and fourteen bluejackets, Livingstone was expecting despatches from both the Admiralty and the Foreign Office, and provisions for his men. Finally, he was looking forward to greeting the nucleus of the Oxford, Cambridge, Durham, and Dublin Mission to Central Africa. This mission was formed by members of those universities in direct response to an appeal made by Livingstone in the Senate House in Cambridge in December 1857. Its goal was to take the gospel to a part of Africa which has been explored by Livingstone; not long thereafter its name was shortened to the Universities' Mission to Central Africa (UMCA). The arrival of the "Pioneer" and the missionaries contributed to making 1861 the crucial turning point in the story of the expedition.

On the cold and snowy 10th March 1858, the Colonial Office-owned SS "Pearl" (Captain John Duncan) slipped out of Birkenhead, bound for Ceylon. Among those on board were David Livingstone, his wife Mary, their youngest son William Oswell, and the six men who made up



Livingstone

the expedition. Second-in-Command was Commander Norman Bedingfeld, RN, (1824-1894) whose duties included the piloting of the "MaRobert," several pieces of which were at this time either stored in the hold or tied to the deck of the "Pearl." Next in the chain of command was John Kirk (1832-1922),¹ Medical Officer and Economic Botanist. Charles Livingstone (1821-1873) was to serve as his brother's assistant. Among other things he was to make a photographic record of the work of the expedition and its environment, and take and record a series of observations of the earth's natural magnetism. Richard Thornton (1838-1863)² was to examine the geological structure of the area visited, with an eye toward future mining operations; Thomas Baines (1820-1875)³ was to keep track of the expedition's stores and record his observations through his capacity as the expedition's artist; and George Rae (1831?-1865) was to put together the "MaRobert," and serve thereafter as ship's engineer and general handyman.

Captain Duncan was planning to deposit the personnel and supplies of the expedition at Tete, which at that time was the furthest inland settlement of the Portuguese in Zambesia (as the section of the province of Mozambique along the river had recently been named). From Tete the men were to make their way upriver to the junction of the Kafue, and on to the highlands south of that river where headquarters were to be established. From this position David would be free to explore the river systems to the north, and his younger brother would organize both a mission for disseminating their particular brand of Christianity on the one hand and a commercial establishment for initiating a trade in the local products on the other. The remaining members were to be free to engage in their own studies, while Bedingfeld was to pilot the "MaRobert" to and fro on the Zambezi as trade links were forged and barter flourished.

Not long after the "Pearl" arrived at the Zambezi delta region on 14 May 1858, it became very clear that the ship could never navigate the river as far inland as Tete. After leaving the men and their gear on Nyika Island (called "Expedition Island" by the Europeans), some forty miles from the sea, Captain Duncan and his crew set sail for Ceylon. It took until 8 November for the men to transport all gear to Tete, and in the meantime, Bedingfeld had been dismissed for what Livingstone regarded as insubordination.⁴ To replace him, Livingstone took two British seamen, John Walker and William Rowe, into the expedition. Within a month after headquarters had been set up in Tete, it became obvious that the Kafue would not be reached quickly and easily, if at all, due to the unexpected and formidable presence of the Cabora Bassa rapids, situated northwest of Tete on the Zambezi. Although Livingstone had heard of their existence in 1856, he had not personally inspected them; he assumed that the

Portuguese knew very little about them, and thus he underestimated their extent. Never one to sit around and wonder what to do next, Livingstone decided to explore the Shire River, the mouth of which had been passed frequently during the move from Nyika Island to Tete.

By 9 January 1859, Livingstone, Kirk, Rae, Walker, and Rowe, with the support of African sailors and porters as always, had reached the cataracts of the Shire, which Livingstone named after his friend and adviser, Sir Roderick Murchison.⁵ Having reached this point, the party returned to Tete. In April Livingstone and Kirk returned to the cataracts (accompanied by Walker and Rowe) and hiked up into the high country to the east, exploring the area and recording the presence of the brackish Lake Shirwa (Chilwa). Upon returning to Tete, Livingstone dismissed Thornton from the expedition for laziness, and sternly lectured Baines on many things, including sloppy storekeeping and behavior with the Portuguese in a manner which Livingstone deemed unacceptable. On 11 July, all members of the group (save Baines, who remained to guard the stores) left Tete for the purpose of exploring the Shire above the cataracts, hoping to find a new site for operations and hopefully to confirm the existence of the large lake from which the Shire was believed to flow. En route, the party stopped at Sena, from which Livingstone wrote a letter advising Baines that he was dismissed from the expedition.⁶

After continuing down to the sea, the party returned up the Shire, and in mid-September were rewarded with the sight of the great lake, to which Livingstone gave the name "Nyassa." With provisions dwindling, the party was in no position to conduct an exploration of the lake, and instead they returned southwards, crossing the Shire uplands once again for the purpose of making further observations of the terrain and its people. Upon reaching the cataracts, Kirk and Rae were despatched overland to Tete to examine Baines and his personal property for signs of theft, and escort the unfortunate artist down to the delta for banishment to Cape Town. In November all were again assembled on the Kongone, where Livingstone refused to grant Baines a "trial" at Tete, or at the nearest British settlement. Instead, he examined Baines personally in the presence of Kirk and Rae, concluded there were too many inconsistencies in his story, and on the 12th of December Baines sailed for Cape Town aboard the HMS "Lynx."⁷ His conduct on the Zambezi (as far as can be determined over a century later) was neither as spotless as he averred, nor as heinous as Livingstone later represented it as having been. With the last of the expedition's three Englishmen out of the way,⁸ the remaining members began to wend their way upriver just prior to the turn of the new year.

They reached Tete on 2 February 1860. After a quick run back

to the sea to collect mail and provisions and to send George Rae home to supervise the construction of a third craft for the expedition,⁹ the party returned to Tete on 25 April. In mid-May Livingstone, Kirk and Livingstone, accompanied by approximately eighty Africans (collectively known as "the Makololo," but actually consisting of members of several tribes subject to the Makololo) began marching up the Zambezi toward the land west and south of the Victoria Falls.

When Livingstone had completed his trans-Africa journey in 1856, he left approximately 125 "Makololo" in Tete while he returned to Britain.¹⁰ Upon his return in 1858, he found that 36 had died in his absence, and several had married and settled down in Tete. In early 1860, Livingstone decided that the time was right to take the remainder back to their own country. Actually, they were to be taken back by Charles Livingstone in early 1859, ". . . but the men, who had no liking for Charles Livingstone, had declined, making the excuse that they had been told by their chief to wait for Livingstone and would be disobeying orders if they returned without him."¹¹ At any rate, leaving William Rowe and John Hutchins (who had replaced the ailing John Walker on 1 August 1859 when the party met HMS "Persian"¹² at the sea) behind to tend to the "MaRobert" and the stores, the party set out for the upper Zambezi on the 16 of May.

With the exception of the desertion of roughly one-third of the Africans, who had no desire to go "home," and a series of quarrels between the Livingstone brothers at more or less regular intervals along the way, the journey inland was accomplished without a hitch. They reached the falls on 8 August, on which day Charles Livingstone achieved the dubious but interesting distinction of being the first person ever to have seen both the Niagara and the Victoria Falls. Here the party delayed, both to rest and admire this wonder of nature, before moving upriver to Sesheke, the leading Makololo settlement on the river. All were saddened to learn the tragic details of the Helmore-Price mission, which had been sent by the London Missionary Society to Linyanti, the Makololo capital south of the Zambezi on the River Chobe. As Livingstone refers to this mission in the following letters, digression at this stage to examine its fate is necessary.

The mission party was composed of the Revd. Holloway Helmore, the leader, with his wife and four children, and Roger Price, who was accompanied by his wife and infant daughter.¹³ They arrived at Linyanti in February 1860, during the rains, and were distraught to receive little cooperation from the Makololo chief. For political reasons,¹⁴ Sekeletu was angry that neither Livingstone nor his wife were present, and he vented his spleen on the unfortunate missionaries. He refused to allow them to move

their camp out of the swamps to a healthier region, with the result that they quickly fell victim to malaria. Seeing them disabled, Sekeletu robbed them of much of their property and made their waning lives miserable in other ways. Within two months of their arrival on the Chobe, all except Price and two of the Helmore children were dead. As Sekeletu was claimed by Livingstone as a friend, and as the mission party had journeyed to Linyanti expecting to receive aid from Livingstone "on the spot," Livingstone was in for a good deal of criticism. Among his defenses was his stated opinion that if the missionaries had followed the treatment for "African fever" as published in his book,¹⁵ they would have survived until his arrival. For this reason he later stressed his anxiety that the UMCA physician be made aware of said fever treatment.¹⁶

Having satisfied himself that he had done his duty toward his "faithful Makololo," Livingstone led his companions back down the Zambezi. But for fortune, he might have been the only European to survive the trip. Charles Livingstone foolishly kicked Lishovi, Sekeletu's headman, when the party was but a few days' march below the falls, and only prompt intercession on David's part kept the African from spearing Charles on the spot. Further downstream, when they were approaching the Cabora Bassa rapids, Kirk's canoe capsized, and he and his African companions were fortunate to escape drowning. From this point they walked back to Tete, and after clawing their way over and through the incredibly rough terrain, they arrived at the Portuguese outpost on 23 November. Here they were greeted by Rowe and Hutchins, who had enjoyed reasonably good health and had carried out extensive repairs to the hull of the "MaRobert." While in Tete, Livingstone was pleased to learn further details of the incursion of the UMCA Mission (he had been advised of its formation the previous May), as it was his favorite dream that a mission which introduced both commerce and the gospel into Central Africa would be a benefit to the Africans, by their exposure to the unquestionably superior British "civilization," and to the homeland, by providing raw materials which would feed home industries. And, the moral teachings of the gospel combined with the economic realities of legitimate trade would quickly sound the death knell of the East African slave trade, especially if these cultural innovations were supported by the active presence of an armed steamer on Lake Nyasa (Lake Malawi). While Livingstone since leaving Cape Town in 1852 had always had an eye out for the commercial value of every African product imaginable, at this stage of his career his major interest was in cotton. He had no doubts that with British technological expertise and Scotch colonists, the area he had examined up the Shire River could be turned into a cotton-producing area capable of eclipsing the production of the southern portion of the United States (which at this time was beginning to function as the Confederate States of America), and thus guarantee Britain's future

cotton imports. Thus the Universities' Mission was to play a major role in Livingstone's plans for Central Africa.

Within two weeks of his arrival at Tete, Livingstone and his men embarked in the "MaRobert" on its final voyage.

John Washington.

John Washington was born in 1800 and entered the Royal Navy in 1812, the year before David Livingstone was born. His first tour of duty was in the Chesapeake Bay and along the eastern seaboard of North America, during the ill-named War of 1812. This was followed by a stint in the Atlantic Arctic regions, where he learned to take astronomical observations. After attending the Royal Naval College at Portsmouth, where he received the gold medal for his proficiency in mathematics upon his graduation in 1816, he served again in the North Atlantic and also in the Pacific. His promotion to Lieutenant was effective from 1 January 1821.

In 1821-22 he journeyed overland from Valparaiso to Buenos Aires, and spent the following two years aboard ship in the West Indies. From the Caribbean he was transferred to the Mediterranean, where he served some four years. During this period he made an excursion into the interior of Morocco, and by astronomical observation fixed the exact site of several cities and places whose geographical location had not been scientifically known.¹⁷ Washington was promoted to the rank of Commander on 14 August 1833.

Most of the remainder of his career was spent in and around home waters. From 1836 to 1841 he functioned as Secretary of the Royal Geographical Society, from which post he edited virtually all of the Society's publications. In 1841 he left his desk and spent the next six years doing vital marine surveying of England's coast. He was elevated to the rank of Captain on 16 March 1842.

When his surveying was completed, John Washington was placed in the Railway and Harbour Department of the Admiralty. In 1853, when he was planning to visit Sweden, Russia, and Denmark to study international standards for lifeboats, he was requested by his superiors to ascertain whatever he could about the Russian Baltic Fleet and the state of the defenses of the fleet's main bases. A hint of the man's characteristic thoroughness can be seen in the report which he eventually submitted, which contained the following: "I have seen every ship in the Baltic Fleet, and been enabled to count every gun that can be brought to bear on an enemy's ship, at

Kronstadt, Sweaborg, Revel, or Bomarsund."¹⁸ That same year he published A Greenland Esquimaux and English Vocabulary, which followed by three years his Labrador Esquimaux and English Vocabulary, both of which were designed to aid British mariners in Arctic waters and were published by John Murray.

Washington was, on 29 January 1855, appointed Hydrographer to the Admiralty, and Head of the Harbour Department, which posts he held until his death on 16 September 1863. From this position he functioned as chief supply officer for the Zambezi Expedition, and thus he handled Livingstone's requests for materials of all sorts. Obviously, he was in a position to oversee most of Livingstone's expenditures, and his papers reveal much about the financial dealings of the expedition.

Evidently Washington always had something of a nervous condition, and this physical condition was greatly aggravated early in 1863. On 7 February of that year, the HMS "Orpheus"¹⁹ was lost on the bar of Manukau Harbor, off New Zealand's North Island. Only 70 of the crew of 256 survived, and Washington's office was suspected of failing to provide Commodore Burnett and his staff with information concerning the exact nature of the waters around the bar. Although he succeeded in clearing his department during the subsequent inquiry, his health suffered greatly, and the strain contributed to his death in the following September. Indeed, he was said to be the ". . . victim of overwork and self-inflicted mental strain and torture."²⁰ Death overtook Washington at Le Havre while he was returning to London from a holiday in Switzerland, and there he was buried with all due respect from the local citizenry. Upon learning of Washington's death, Livingstone wrote to Murchison: "I am deeply grieved to hear of the death of our good friend Admiral²¹ Washington. He did everything in his power for us."²² And in his book on the expedition, Livingstone paid tribute to Washington as follows: ". . . and to the warm-hearted and ever-obliging hydrographer to the Admiralty, the late Admiral Washington, as a subordinate [contributor to the work of the expedition] but most effective agent, our heartfelt gratitude is also due. . . ."²³

The Letters.

The following twenty-nine letters are a portion of a collection of sixty such letters and many additional documents relevant to the Zambezi Expedition, which are contained in MSS 120 of the Ministry of Defence Naval Library, in London.²⁴ Those published herein comprise the latter half of the collection; those remaining include letters written between 11 November 1857 and 28 November 1860. The length of the collection made complete publication at this time an impossibility.

The year 1861 was a turning point for the expedition in the sense that Livingstone began in real earnest his search to find a route to the interior of south-central Africa from the east coast, which would not pass through Portuguese dominions. The most likely route was up the Ruvuma, and having realized that the Cabora Bassa rapids could not be surmounted (for all practical purposes), and having seen that the political disintegration of the Makololo was imminent, Livingstone abandoned his idea of forming a mission among them. In fact, once he left Tete in December of 1860, Livingstone never set foot in that village again; he turned toward the Shire highlands, and he never looked back. Now the Ruvuma became his goal: the "Pioneer" brought permission from the Foreign Office for him to explore its banks, and it was to become the route by which his settlement would communicate with the outside world. Nevertheless, Livingstone did not abandon his hopes for the Shire. Instead, he continued to press the British government to secure free navigation of the lower Zambezi for British vessels. If this were granted, then the final obstacle between Lake Nyasa and the sea would be the thirty-three mile long Murchison's Cataracts of the Shire. Never at a loss for plans, Livingstone decided to construct a road around the rapids, on the right (west) bank of the river. Hence the "roadmaking" he mentions in several of the letters.

The present group of letters has significance in addition to the airing of Livingstone's plans for the two-pronged assault on the lake. They contain some information on the men who served aboard the "Pioneer," most of whom have been ignored by those who have written about Livingstone.²⁵ Indeed, these men were often overlooked by Livingstone himself, and he only rarely refers to any of them (with the possible exceptions of the officers of the "Pioneer" and E. D. Young) in letters to his many correspondents.²⁶ In addition, the letters describe in detail many of the problems which befell the "Pioneer" and the "Lady Nyassa" as Livingstone attempted to drag them up the shallow and unpredictable African rivers. The letters also throw light on the problems of supply endured by the Zambezi Expedition and on the concurrent financial problems which irregular means of supply naturally entailed. Finally, they tend to dilute the oft-repeated belief that Livingstone could not get along well with Europeans under the trying conditions of tropical Africa. Actually, he got on rather well with many: in addition to Kirk, Charles Livingstone, and Rae (with all of whom he had bad moments, but all of whom stuck with him until the final phases of the expedition), David had very good relations with John Duncan of the "Pearl," John Wilson of the "Gorgon," as well as E. D. Young, William Rowe, John Hutchins, and David Gwillim, to name only a few. He also had a great deal of respect for the men of the UMCA, especially Bishop Mackenzie, Henry Scudamore, and Horace Waller.²⁷

And although he never mentions Francis Skead²⁸ in these letters, one wonders how much greater the harmony among the expedition's members might have been had Skead instead of Bedingfeld been Second-in-Command in 1858.

In preparing the letters, I have tampered with them as little as possible. Occasionally a comma has been added to clarify Livingstone's meaning, and long unwieldy sections have been broken down into two paragraphs. Neither type of alteration has been recorded in the footnotes. Livingstone's spelling and capitalization has been retained, and I have freely used an asterisk (*) to indicate "Thus it is written in the manuscript." Recurring spelling errors, such as "untill" and "recieve" have been indicated with an asterisk only in the first few instances where they occur. A limited number of Livingstone's strikeovers are reproduced, but those which seem to be mere slips of the pen are omitted without comment. Livingstone's "+c" for "etc." has been retained throughout, as has his use of "+" for "and." Inconsistencies in spelling (Hardisty/Hardesty)²⁹ and thought processes are self-evident, and comments on his excessive repetition have been avoided. The dates in brackets which form part of the heading in most of the letters indicate the date that the letter was received at the Hydrographer's Office. When these dates are in Washington's handwriting, the initials "JW" follow immediately; when the date is affixed by the Hydrographic Office Stamp, the letters "HOS" follow; and when the date is indicated by both methods, I have added the word "both." Dates given after the names of naval commanders indicate when they were appointed to their command. Finally, since the bulk of the preparation of these letters has been done from photocopies rather than the original manuscripts, accuracy is certain to have suffered.

Letter 1

Kongone, 1st Feby 1861
[11 April JW]

My Dear Captain Washington

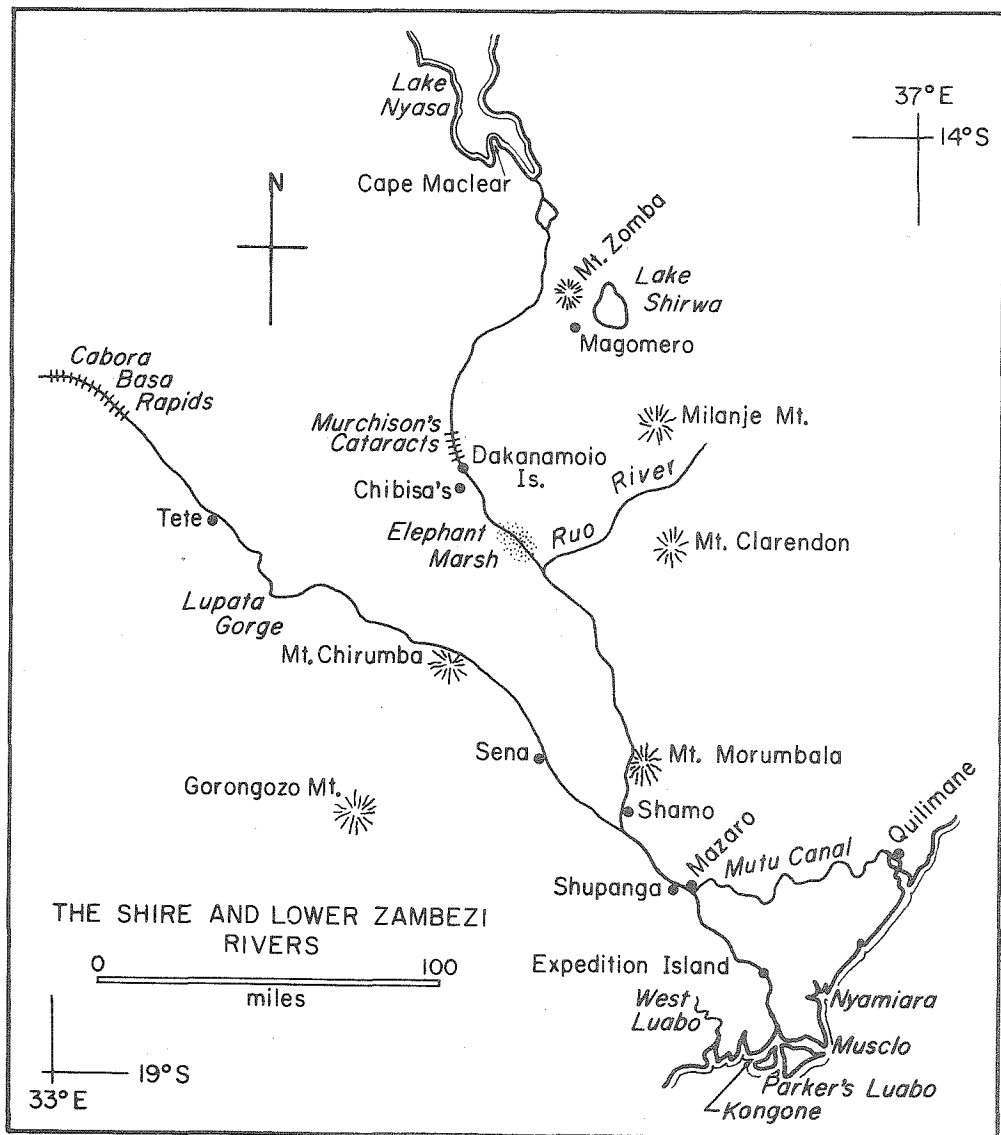
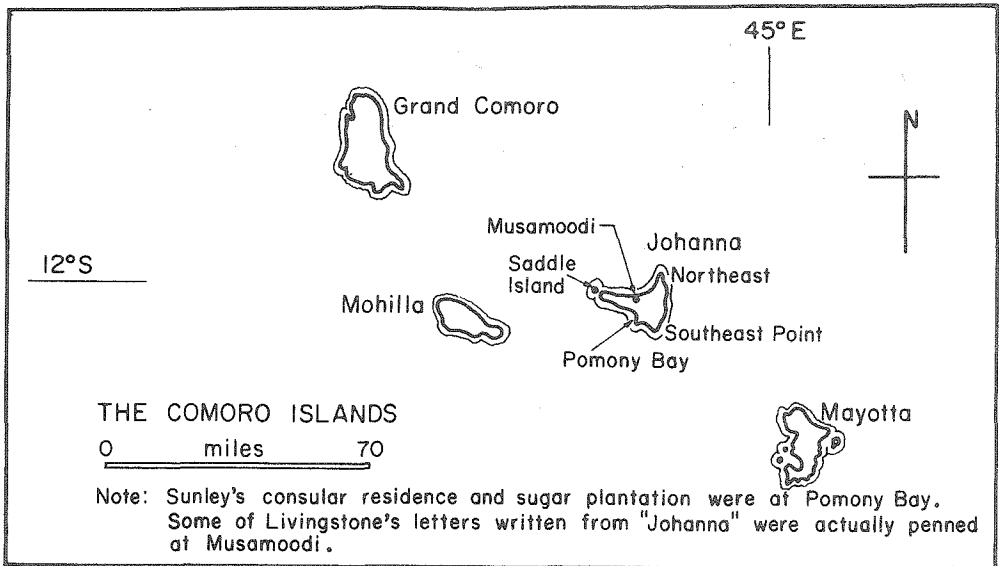
A barque rigged vessel appeared on the South East of Flag Staff island last night and answered our signals at 8 P.M. so we conclude that our new vessel must be near and make up our mails. See a schooner opposite Luabo at midday.

Rowe¹ had worked at the bottom of the Launch² so assiduously during our absence, that we thought we could bring her down to Senna, and there take out the engine. We took the Pinnacle³ too--an old teredo⁴ eaten one when we got her--intending to stick to that which swam longest. The Pinnacle went first, and we could put the finger through every part of her bottom with ease, when we decided to use her as fuel. New holes burst out every day in the Launch, sometimes seven in one afternoon. We puddled and patched most strenuously, but at last could not keep two compartments from being constantly full. Went some days so, but happening to drift on to a sand bank scarcely knee deep the weight of the two full compartments prevented our getting her off. The water took away the sand from the upper side, and she filled all over. We took our things out and the river rising next day she was covered. She lies one day above Senna. We have taken all the good out of her that ever was in her. I only regret that I did not get a bottom plate to send to you and you would see that patent steel is not the thing for Tropical waters.

I am in want of writing paper, official and other kinds. Baines made away with our supply. We require also a fresh supply of Resin of Jalap and Rhubarb.⁵ Also some phials for insects. Mr. Young⁶ will select the proper kind when he gets my letter. I have to beg your favour in sending our periodicals by your mail. They come so irregularly + are used, I conjecture at the Cape, that I wish them sent by a Man of War without going to the Post Office. It is a mere conjecture⁷ on my part from my periodicals having been treated the same way when I was at Kolobeng.⁸

Dr. Kirk was going home but when we heard that the Rovuma was to be explored I saw that the botany there ought to be examined as well as that of the Zambesi and that he would like to go, so we take him. He has done well for this region. His report is a good one. It will be sent next mail. Thornton has gone to Mosambique. His salary will on my recommendation be restored to him.

I am very much delighted with the prospect of a mission from the Universities, and think that great good will be done. The London Missionaries⁹ did not let me know of their movements, though the Cape papers spoke of them as "in connection with the Zambesi Expedition," and it was only at Victoria Falls that we became aware of their arrival + sad fate. We shall take care to make the medical man of the Universities mission thoroughly aware



of the way we treat Fever. I have ventured to say that you can supply the name of our bead merchant, Mr. Kendal,¹⁰ to the secretaries.

If I add nothing more it will be on finding our vessel all right. A boat is now coming ashore by the wrong passage East of the Island. A mistake she did not come in.

Yours most truly
D. Livingstone

4th. Both vessels¹¹ came opposite us yesterday + answered our signals last night. They want fair weather.

Pioneer got in on the 5th all right.

Letter 2

Rovuma Bay 5th March 1861
[15 July, both]

Dear Captain Washington

We have been here eight days waiting for HMS Lyra¹² with coals-- cannot conceive* what detains her as we expected her on the 1st and Captain Oldfield is not the man to delay without cause.

Rovuma promises fairly, a very large deep bay. The river's mouth a mile wide, and no bar. Mr. May¹³ got no bottom at seventeen fathoms across the mouth. An immense body of water rushes out. We went up some eight miles in the boat and found it to be in full flood. High land begins about that distance from the mouth, so we seem to have a very short delta. It (country) is well wooded + many snags show that character higher up. People speak the same language as at Senna (nearly) so we shall get on. We expect the Bishop¹⁴ by Lyra. He agreed, not without a pang, to postpone landing in Africa for three months.¹⁵ This takes him over the three most unhealthy into the three most healthy months of the year, and should Rovuma answer our expectations he will make his settlement there + so will be quite away from Portuguese pretensions. Had we taken them up to Murchison's Cataracts it would have been subjecting them to the risk run by the Linyanti mission. His (the bishop's) luggage + some of his people are landed at Johanna. As soon as we see that there is a pathway to Nyassa we go to examine it while the Pioneer goes to Johanna to bring the whole party. We believe the language may be studied there as it is said to be the Makoa dialect. Should Rovuma not prove favourable we can go back to Shire + in the healthiest time.¹⁶ We like what we have seen of the bishop and his party very much and rejoice much to see them as the first instalment of a mission destined I hope to do great good in Africa.

I have to beg you to correct a mistake into which I fell in the prescription of our famous Fever Powder. We went over to the N.W. to

examine whether a creek shown in the chart as a mouth were really so. It opens into the bay near its Northern extremity but is simply a creek. There is a mouth more to the N.W. no doubt, as we got into a goodly stream of fresh water by going S.W. and went all day without regaining the main stream in the West of Rovuma. Sleeping in the boat I waked + recollected that I had given the proportion of Calomel which ought to have been Rhubarb + should you send the enclosed to Dr. MacWilliam¹⁷ the mistake will be corrected.

Mr. May knows his work and I am right glad of the prospect of getting at last to mine. We cannot part with our white crew, and a month in the river will be no great risk. We promise them double while in the river. I keep Rowe as he is of great use to us ashore.

David Livingstone

6 March Lyra in sight.

Letter 3

Pioneer, Rovuma Bay
11th March 1861
[15 July, both]

My Dear Captain Washington

The enclosed Mess bill of Mr. Rae amounting to £31 - 16 for 66 days was handed to me by Mr. Jones,¹⁸ Paymaster of HMS Lyra.¹⁹ Had it been a small sum I would have paid it and put it to the incidental expenses, but it is more than I possess of public money though I have recieved* a balance from Mr. May of £17 - 17 - 4. I therefore send the bill to you and refer Mr. Jones to you for settlement. You will be able to explain the account to the Foreign office. I sent Mr. Rae to the Admiral²⁰ at the Cape and requested him to furnish a passage in some Government vessel to England. He seems to have taken another route, and came to grief.²¹ He had all Dr. Kirk's specimens²² and other articles in charge, but sent them all, as we hear, by the Cape. We don't feel well pleased at his parting with them.

We go up Rovuma today. All promises fairly--no bar--17 fathoms + no bottom felt across mouth which is a mile wide. People speak a dialect very nearly allied to that of Senna. The men who knew all our discoveries long ago ought to come down with their knowledge before we come down with ours.²³ In three months please God we shall tell you all about it. The bishop is on board--an excellent man--and all his party Do Do [ditto].

David Livingstone

Letter 4

Johanna, 18th April 1861
[15 July, both]

Private

Dear Captain Washington

After ascending barely 30 miles we found that the water of Rovuma was falling at the rate of about half a foot a day and we saw at once that had we proceeded we should be detained till* next flood. Had the whole of the bishop's party been with us we should have had little hesitation about it, but as only he + Rowley²⁴ were there we resolved not to be caught but return here and then go to Shire. Had we taken them there first we see now that all would have perished. Fever is unusually severe this year, probably from the amount of rain being greater than ever known. While on the Fever I may say at once all have had it with one or two exceptions and all have recovered. It was all we could do to make Mohilla. There we bought very indifferent wood, then we bought a ton of coals here to take us round the island to HMS Wasp²⁵ where we got 26 tons. We got also a rain awning of which we stood very greatly in need for our "sun awning" allowed any one under it to be drenched. Having a great many things in the cabin, as we have no hold, most sleep on deck. The rain awning will be a great protection + comfort. I treated all the men who had been sick with fresh meat + vegetables as often as we could get them.

I engaged six Johanna men, some of whom have been on board Whalers at £1 8/8 a month or as they say seven dollars. I advanced 2 months pay to each. They are easily rationed and should these be pleased after 12 months service we shall get as many as we please. I had just taken our Makololo crew home to their own land when Pioneer arrived, and sixteen who are now with us are perfectly raw and useless on the sea. For land they are invaluable. They brought the half caste Arabs on the Rovuma to their senses in no time by only making a rush to their arms when they began the insolence of which Burton²⁶ so much complains.²⁷ But on the sea they are like children, and I have to treat them with the greatest gentleness. We discharged five men into the Wasp on receiving* the Johannese.²⁸ One Quarter master is quite useless from old Rheumatism, and a Leading stoker, a most willing man, from chronic dysentery of old standing. The others were quite well. We shall reduce the whites as soon as we can. The stokers, for instance, but they are necessary for this sea voyage. Mr May goes home by way of the Cape. He has suffered somewhat from fever, and his remaining would have broken up the previous arrangements of the Foreign Office, and possibly caused disturbance,²⁹ so I proposed to him to retire in an amicable way, as you had wisely forwarned* him might be necessary, I giving him a letter thanking him for his services in bringing out the Pioneer. ~~Any thing in explanation I leave to him.~~* I have avoided saying a word about his retirement to any one, except to the Foreign Office, and hope no unfavourable inference may be drawn from his retiring.

Returning to the subject of expenses, I received £17 from Mr. May, the balance of money recieved* by him at the Cape. The bishop

had advanced £10 to a black man intended to act as Mr. M's interpreter. This man was to receive* £36 per annum + £2 per month was to be advanced to his wife out of it. As we could not well break through the arrangement though he is useless as an interpreter, we have made him cook. We found he had been a slave and would have made mischief so send him off to the Cape. His wife and he will cost us not £17 but £22. The balance of £17 was therefore only nominal. Our expenses for fresh meat and vegetables, which for the sake of those who had had* fever I got as frequently as possible; for fowls, wood at Mohilla, boat hire, one ton of coals to take us round from Pomony Bay to the Wasp, provisions for the natives on board, and advance of two months wages to each, amounted to nearly £50, so I gave a receipt for that amount on the 18th April to the Paymaster, HMS Wasp.³⁰ We also got stronger tackling; that used to take the ship off a bank in Rovuma having broke several times. Also an addition to the white crew's provisions. We shall not come down the river till* 1st January 1862. We ought then to have a stock of fresh provisions ready at the mouth of Kongone. Preserved meats are the most important article for us. Those on board Pioneer when she came were to last till September. In consequence of having the bishop + Rowley, Kirk, Livingstone + myself addition* Mr. May will tell you there is not much of the stock lasting so long. We shall use as much native produce as we can. We ask the bishop to contribute to the cabin table from this place onwards.³¹ The only thing we ask of you is Preserved Fresh Meats. We can get coffee, tea + sugar from the Cape, salt meats and biscuit from the men of war.

We found 23 bottles of brandy in Pioneer, and put them into the medical stores. Of wines and spirits a good quantity was got at the Cape + that is the best place to send if we need any more. A present of 4 dozen best Export ale from Mr. C.S. Hanbury³² turned out to be only four bottles--they had forgotten to wire the corks!! The idea that there* were safe made us use those you kindly sent freely after our long tramp up to Sesheke. Please do not send any more cotton gins till you hear from me, but honour a small bill for some medicines from the Apothecaries company which will be sent. The new medicines got at the Cape are rubbish and in some cases required a shovelful of salts atop to make them operate.

I could not square our last years account because I could not get a bill from Quilimane + another from Mosambique, but though the expenses arising from our goods being pretty well all expended, the calicoes being very dear + our means of locomotion gone, the sum against Govt* is not large. I have received* £130 by way of the Cape Treasury.

If there are any means of getting Mrs. Livingstone a passage out I think I shall be able to provide a house for her by January 1862. I understand that Government has contracts with certain lines whereby they

can send whom they will at a lower rate of fare than the common. If you can procure that or any other advantage you will oblige me much. The bishop's sisters³³ are now at the Cape and come up by a Man of War in January next. I suppose we shall have entered into little contracts with as many villages on our route as we touch at to buy cotton and also settled the Nyassa and Rovuma questions by that time and it will not do for me to keep away my wife after the other ladies have come. So I give her leave to come and she will be sort of head quarters for us. The steamer must remain up all the time till January next as our point of retreat.

A small gun boat's condenser said not to be more than 18 inches in diameter and costing only £15 or £20 would enable us to get rid of a great inconvenience--the want of a hold. It is said that there are a number of these little condensers always on hand. They are made for the smallest gunboats and distil enough for all we shall ever need to put aboard. We could get rid of the large tanks. We are now obliged to put in three tons of water, and though we may not be in the sea often yet we should condense in unhealthy water such as Rovuma in flood, which gave us all diarrhoea. I mention this to you only. I think all additional we should require would be piping and only a few feet of that.

We have ordered 2 mules and 2 Scotch carts from the Cape by Sir George Grey³⁴ to transport our goods past the Cataracts. By the way, our goods should have been got from James Aspinall Turner³⁵ MP for Manchester. He supplied us formerly and his goods gave great satisfaction. Mr. Clegg's³⁶ people sent a lot of fragments in one bale, + the articles generally though good for the West no doubt are too flimsy for our people.

Of the men discharged into the Wasp, two were suffering from the effects of former Tropical diseases, but all the fever cases recovered well. Proctor³⁷ complains of a little fever today.

I am +c
David Livingstone

I enclose requests made by Hardisty³⁸ + Gedye³⁹ for you to draw and appropriate part of their pay, as it seems you kindly offered to do. I told them that a quarterly life certificate was not necessary.

I enclose also a plan and measurements for the condenser. Mr. H. says that the second size used in the gun boats and not the very smallest would suit us. We could take out the tanks and make a sort of hold and thereby stop any talk that may arise about forgetting one.

Letter 5

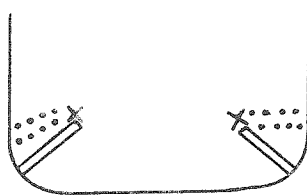
Kongone Harbour 1st May 1861
[1 Nov JW]

Dear Captain Washington

Mr Hardesty informs me that the brasses or bushes of the paddle shafts are cracked by a strain put on them when aground in the Rovuma. He thinks that they were too thin originally--some sand has got in and worn them a good deal thinner. As Mr. Penn⁴⁰ has the patterns we think it well to send for new ones and as soon as we have an opportunity Mr. H. will make a drawing of them with buttresses on them from which Mr. Penn will be able to send us thicker and stronger ones.

18 May Shamo in R. Shire

After spending some days in wood cutting + going round by the Pearl's canal to the mouth of Parker's Luabo,⁴¹ we steamed up on the 7th + 8th to Mazaro, taking just 16 hours from the sea to that point. The last time we came over the same ground,⁴² in the famous "Despatch Boat," it took us ten days. We did not touch the ground once though the channel is a little altered by the late very high flood. At Shupanga we went over to the shoal side of the river in order to get young mango trees + pine apple plants for the mission and unfortunately drifted on a shoal and had as at Rovuma the engines filled with sand. They are splendid* engines and a credit to their maker but there is a defect which few would think of. The pipe which draws in the water is placed so as to draw in sand whenever we come into shoal water. There seems to be no rose to them as pebbles the size of marbles were taken into the bottom of the air pump. If in addition to those pipes already in we had others as marked by the dotted lines + a cock to shut off each set, one could be used in a sea way the others in the river.* A few yards of copper piping + cocks would not cost much and Mr. Penn would no doubt take the trouble to fit them according to his model. If the roses of the new pipes were 3-1/2 feet from the bottom, no harm would ever come to the engines either by sand or weeds. As it is now the time when we need the engines most they are of least use as our bilges are so shallow we cannot draw water from them.



We spent some days repairing and are now waiting for our cart and cotton gins from Senna. The Shire is all deep except one or two small spots. We have a good deal of fever yet. We are very much crowded--52 souls aboard and a large deck cargo--but for wood cutting we should be at Murchison's Cataracts in 2 days from this. We came from Johanna in eight days + waited one night only for a smooth bar.

I am +c
David Livingstone

20 May 1861 R. Shire
[1 Nov, both]

[Salutation omitted]

I hereby certify that Dr. Kirk, Mr. Charles Livingstone, Dr. Meller,⁴³ Mr. Hardisty (engineer), Wm Rowe, John Hutchins, Quarter Master Gwillim,⁴⁴ Stokers Pennel,⁴⁵ Wilson,⁴⁶ Seamen John⁴⁷ + Charles Neale,⁴⁸ Carpenter Fayers⁴⁹ and Thomas Ward,⁵⁰ Steward are well and performing their duty on board HMS Pioneer⁵¹ at this date.

David Livingstone
HM Consul

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[Having completed his first attempt at discovering the nature of the source of the Ruvuma, Livingstone turned his attention to the two major projects which were to occupy the expedition for the remainder of the year. The first item on the agenda was the finding of a suitable site located in a promising geographical situation for the settling of Mackenzie and his Mission.

On 15 July, Livingstone led the party away from the "Pioneer" and began to ascend the high country east of the Shire. Next day they encountered a slaving party, and Livingstone recognized one of the drivers as Katura,⁵² a slave in the household of Tito Sicard.⁵³ The slaves were freed, and the Mission had an unexpected congregation of 84 Africans, many of whom were Mang' anja who had been sold to the Tete people by the Yao (Ajawa).⁵⁴ When on the 23rd Livingstone was attempting to hold a conference with the Yao, they misunderstood his motives and loosed their arrows on the party. The Europeans returned fire, and the Yao dispersed. In the following days a site for the mission was chosen at Magomero, and on 29 July Livingstone started back toward the "Pioneer."

Eight days later Livingstone, Kirk, Livingstone, and John Neil, supported by the usual contingent of Africans, began ascending the upper Shire. In addition to exploring the great lake, David wanted to determine whether or not the Ruvuma was an outlet of Nyasa. He suspected it was not. The party sailed up the west shore of the lake, while Livingstone walked among the hills to meet the local inhabitants. The men in the boat reached their northernmost point on 6 October, near 11° 20' S. Lat. Although they could not see the end of the lake, Kirk decided it was necessary to return to re-establish contact with David. This done, they continued south, being prevented by bad weather and dwindling food supplies from crossing to the east shore to seek the Ruvuma. Nevertheless, Livingstone

had seen Arab dhows crossing the lake, and he was determined to return and put an end to slave trading in this region. They re-entered the Shire on 26 October, and reached the "Pioneer" on 8 November. The privations the men had endured were terrible: all four Europeans (and presumably their African companions) had been reduced to mere skeletons by the lack of food, and Charles Livingstone's hair had suddenly begun to turn grey. A week after their arrival, the "Pioneer" began to drop down the Shire. Soon it ran aground, providing Livingstone with another opportunity to write Washington.]

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Letter 7

HMS Pioneer 6 Decr 1861
[27 Jun/62 JW]

Private

Dear Captain Washington

I have to thank you for several letters up to 5th May which as usual came in a heap. The Mail was brought by three of the Ox + Cam missionaries⁵⁵ who came up the Shire in common country canoes without knowing a word of the language or a bit of the way; a feat I believe never yet performed by a Portuguese. Thanks for all your kindness in writing and in doing on our behalf.

The Pioneer is I am sorry to find much too deep for river work. We observed that in the Rovuma, and again when we reached the upper part of the Elephant Marsh. Below that she has plenty of water. We warped her up some 20 or 30 miles in order to place the missionaries and our men in a healthy spot at Chibisa's, and will do the same to place our new steamer on the Lake.⁵⁶ Were it possible to put Pioneer on the Lake, she would suit us admirably. She is so strong and nothing but a strong and deep boat will do there. After seeing the missionaries up to the Highlands we carried a boat past Murchison's Cataracts, a distance in Lat. of 35' but about 40' with the Longitude. When there we are virtually on the Lake for the upper Shire is all deep and smooth. The Lake is very deep. As the upper Shire is from 9 to 15 feet so the Lake gradually deepens to as many fathoms. Then in rounding a mountainous promontory which gives a forked appearance to the Southern end and which we wish to name Cape Maclear,⁵⁷ we felt no bottom with our lead line of 35 fathoms at a mile from the shore. In the North in 11° 40' S. Lat. we tried with a fishing line in a bay and found bottom at 100 fathoms; a mile outside no bottom at 116 fathoms but the line broke in coming up. A ship would not get anchorage except near the shore, but there are several small, rounded rocky islands and adjacent to these as also to all the rocky highlands there are rocks jutting out, or only covered with a few feet of water.


The Lake is from 20 to 50 or 60 miles broad, but we could not measure it by a chronometer as we were there during the Equinoctial gales and tremendous seas get up in 15 or 20 minutes. The rollers are as large as I ever saw at the mouth of the Zambesi. They come across the Lake with perpendicular sides and hairy heads and break in 14 or 15 fathoms. We had to beach the boat every night to prevent her being swamped at anchor, and often durst not attempt to launch her. An Arab dhow lately built to carry slaves across fled from us twice to the Eastern shore. It would have been madness to have risked ourselves in a slight open boat. Though the great object of our exploration was not attained, I mean the question of the Rovuma, I cannot blame myself. We did all than* it was possible to do, and came back as lean and dried up as red herrings. We could see that the Lake is surrounded by mountains and high table lands. It was only by sketches and bearings at different Latitudes of these as the sun rose behind them that we got an approximation to the width. When we passed $11^{\circ} 40'$ S. we came to a recently depopulated region--human skeletons and putrid bodies lay everywhere--no food was to be had and some of the people--a tribe of Zulus from the south originally--⁵⁸ fled from us. The boat went about 20' beyond the last latitude I took. I went nearly as far on the mountains--thence and also from the boat 20' more could be seen. So we may say that the Lake extends to the southern borders of the tenth degree of south Latitude. It begins in $14^{\circ} 25'$ and may be 225 miles long. We say over 200 miles. Pirates live on detached rocks on that part of the coast, and food was so scarce that a fathom of cloth was demanded for a fish's head. We came away back along the west shore.

The reports about Rovuma as contradictory as possible.* One man asserted positively that we could sail out of the Lake into the river; a second, that we must lift the boat a few yards; a third, fifty miles; a fourth, a hundred. All agreed in saying that it is a very large river. The islands are uninhabited, with perhaps one exception. No current could be detected. It rises and falls about 3 feet between the dry + wet seasons. The population is prodigiously large--I never saw so many people as those who live on its shores. Slaving is the only trade. I was much disappointed in not finding a large river on the West that would have lessened the Longitude to the Makololo country. Five rivers flow in on that side but they are small. The Lake is not much longer than we have seen for the people do not cross but go round it where we turned.

It will take us a whole year to carry our vessel past the rapids. We were stationary at Chibisa's⁵⁹ yet collected with ease cotton equal to 300 lbs of clean cotton. The price very low and our calico so flimsy that we felt we guilty of cheating them.* It is high time that regular cotton agents should begin their work. Had we been able to run up and down a great deal more could have been bought. The goods Mr. Clegg sent are quite unsuitable

for the people here. Mr. Aspinall Turner supplied us before. £45 worth bought by Mr. May at the Cape possessed the same character for flimsiness, and while in going North we could buy any amount of food, in coming south we had been found out, and we could not get enough to satisfy hunger. They flung the cloth at us, and called it mosquito curtains. An investment by May in a sort of penny trumpet is quite unsaleable. So are trumpery looking glasses. Had Mr. May refrained from spending money at the Cape, we could have supplied ourselves with strong American calico on the Zambesi at a cheaper rate and saved ourselves the annoyance of seeing slave buyers with better cloth than we could offer. The unavoidable injury to our character for fair dealing is lamentable. The velvet is a good deal weaker than common brown paper. I shall be obliged to purchase other stuff for wages at the roadmaking.

Mr. Rae writes that he had put down a watch for me among his losses. We sent 2 pocket chronometers by him for cleaning + repair. I believe I gave you the numbers. I had no watch there, but a silver thermometer case. As my own pocket chronometer is now defunct, I shall if you please buy this watch that is coming, and which he says he put down by mistake for the silver case. He was ordered to go by way of the Cape in charge of botanical collections and the chronometers. When the Lyra took him away from Quilimane they met a ship going to the Cape; he put ten of the boxes aboard but would not go himself. Went towards Aden + came to grief. We hear that five of the boxes were lately seen at Mosambique--to Kirk's great sorrow unaddressed.

In connection with the thermometer, I learned what, though probably well known to you, was perfectly new to me--the glass tube and ivory scale expand and contract so as to ensure fracture. It was a neat pocket instrument in a silver case by Dixey of New Bond St.⁶⁰ and had a small compass on the lid. It was broken opposite to the bulge inwards of this compass and I  concluded that pressure against my side had done it. Sent for another--it came out in a wooden case and broken too. The ivory scale had contracted by the heat and the glass expanded and fracture was the result. I suppose glass scale blue with white figures would be the proper thing. I valued the instrument lost on account of its being a present from Sir Culling E. Earldley,⁶¹ but the watch is of much more value, and needing it, if you let me know the price I shall add it to the money I have on hand for current expenses, or give you an order on my banker for the amount.

A very fine sextant was brought out by Mr. May. It is easily adjusted to Index Error 0''* but above 100° degrees* two images of the sun are formed, one from the surface of the glass mirror and another from the quicksilver behind. This would have been no great disadvantage, as we should have used it only at lower altitudes, but the mercury being in the same

box leaked and an amalgam was formed on the arc which renders it illegible in the evenings. Mr. Maclear will send you a tracing of the Lake with my work there. The West side is a remarkable succession of bays one after the other up to the North. No latitude was taken after I left the boat--fever was among them.

I earnestly hope that the gins sent are not saw gins, Mr. Clegg says they deteriorate the cotton. We send our bit of cotton to Mr. Turner MP for Manchester.⁶² We wish to secure a good character for our cotton but the gin we had would not clean it though improvements were tried by Mr. Hardisty. I hope too the press is an hydraulic one--the others are so enormously heavy. If you saw them yourself I am sure it will be hydraulic.

The opinions of such men as Sir James Clark,⁶³ Sir J. Liddell,⁶⁴ and Dr. Bryson⁶⁵ are not to be despised--though not a medical man you will easily understand that two of the ingredients of the pills are incompatible, that is, they are believed to decompose each other when brought into combination. Calomel + quinine should never be combined in a scientific prescription. But opium and sugar of lead are just as incompatible and yet they are the ingredients of one of the best pills we have for dysentery and stand in the Pharmacopoea. It is believed that they do dissolve each other + form a compound which is eminently useful. You must understand, however, that I do not for a moment justify unscientific prescriptions.

We were all taught to reduce the fever before giving quinine. Dr. MacWilliam followed this rule rigorously* in 1841, but in 1850 I took my children with me to Lake Ngami intending to settle with Sebituane.⁶⁶ Fever knocked down two of them and I was led by feelings which you can well understand to give quinine before the fever was reduced, and with such good effect I have followed the plan ever since. Quinine is the great curative agent for fever. The pills are but half the cure--we give quinine until cinchonism is produced, and with pure quinine that is effected by a few doses after the pills.

I took seven Johanna men on trial and dismissed six Europeans into the Wasp. We find that the Johanna⁶⁷ men are better than the Kroomen.⁶⁸ They never take fever and work well. They have the same wages, viz. a fraction under one shilling per day. We shall try and get a dozen more and do with as few Europeans as possible--an engineer, two stokers, a carpenter, cook, and two quartermasters seem indispensable. At present we have two seamen besides. I trust you have renewed the request to the new admiral to render us assistance; we need a good many things from the dockyard. Slops⁶⁹ taken up by officers are paid to me and I put the money to the balance on hand for current expenses. Those taken up by the men are placed against them when leaving. I have £50 on hand now and this will do I believe for all

incidental expenses for next year. I have to pay the wages of Mr. May's interpreter yet, and purchase calicoes for wages to the people to be employed in road making. I suppose Sir George Grey will have sent home a bill for two mules and two Scotch carts I asked him to send us to carry the steamer across.

We had bought a number of hoes for the road at about 6d each. They are of native manufacture entirely. Many of the tools you have sent will be very useful and I think quite sufficient for our purpose as we go out from the river and thereby avoid many gullies and hills. It will be a curve of some 50 miles long. 1200 feet of altitude must be got up. The West is far easier than the East bank, where so many spurs come down from the highlands. We shall have plenty of workmen if we have calico-- a cubit a day is handsome pay to them. When we came the first time we could not get a guide without the greatest trouble--now we can get fifty at five hours notice. As soon as we get on the Lake not an hour will be lost before settling the Rovuma question. The Portuguese have built a fort near the mouth of the Shire to enrich themselves with the dues from the cotton trade, while others work hard to render the Shire as devoid of population as the Zambesi. So I am quite alive to the expediency of securing another outlet.

Between ourselves I am rather mortified to find that the missionaries went to fight the Ajawa.⁷⁰ I would not have gone at first had I in the least suspected an attack, but used messages and presents before venturing among them. The head chief Chisunze of Manganja came afterwards and urged our going to drive the Ajawa entirely away. I was spokesman and gave him to understand in unmistakeable* terms that we did not come to fight nor would we use our arms except in self defence as in the case which had just occurred. The bishop agreed to all I uttered, and enumerated the points inculcated as religion, peace, unity, no slave selling, industry and civilization. I did not know I had touched on all these points, but after we left he went, assaulted the Ajawa, burned their town and took a number of captives. They are now our enemies for life. We could have easily got over the first affair for all acknowledge that the party that begins the fight has all the guilt, but I fear we shall never be friends now.

Many thanks for the ale--none, however, has yet come to hand, but it will turn up in time.⁷¹ We had some when we returned from Nyassa and it is after severe exposure and sun roasting, that one enjoys it thoroughly. One of the younger Hanbury's* sent us 4 dozen = corks unwired and 4 bottles only remained of the whole.

Drs. Kirk + Meller will draw their salaries by means of their brothers. I give a certificate of life and we make a sort of power of Attorney, not properly worded, of course, but by your assistance it may do.

Messr Gedye + Hardesty's Fathers draw their salaries and Mr. Frederick Fitch⁷² does the same for my brother. I have drawn slops from the Sidon and Wasp; some have been taken up by the seamen. I keep a list and give it off to the Forté⁷³ or Admiral's ship if they leave, to be deducted from their pay. Some have been taken up by the officers of the Expedition. To simplify the accounts I take their money value and place it with the balance on hand, and with some I paid sixteen Makololo who were intended to form a land party on the Rovuma and did act in that capacity on Nyassa. We thought of leaving them at the foot of the Lake + to let the boat party perform all the Exploration, but though they were quite willing to remain, in the event of accident to the boat we should have perished. It was only fear of our numbers that induced civility where slaving goes on. In the sphere of the dhow's operations the people were worse than ever I saw Africans. We were robbed twice (the first time to me in Africa), and one of the natives was robbed and bound for sale when the chief interfered and liberated him. We should have captured the dhow had we got a chance, but the owners, three Arabs or light coloured people fled to the East shore as we came near. As we came South there were only black men in her, and they fled again as we approached. I suppose no fault will be found with us for taking her though we have no slave papers.


20 Decr

I see that I have repeated myself in consequence of having written at different times. We started from the island Dakanamoio 15 Novr by a sudden rise of the river--dropped down about ten miles--and next day could go no further as it fell a foot. We have been detained ever since waiting for the river to rise. I mean to go down to the Kongone in an old whaler so as to communicate with any Man of War that may call and land the provisions. The river will be sure to rise in January, and then the ship will come down. As I take the mail with me I close this now.

Ever Yours +c
David Livingstone

PS We once in coming up the Shire in the MaRobert killed a number of elephants but got the tusks of three only--four tusks were worth selling and I sent them to Mosambique and got £50 for them.⁷⁴ We used Government wine + brandy for quinine as long as it lasted, then bought more for the same purpose and in addition some private mess stores, which we did not use except on Sundays and special occasions. Baines confessed to making away with half the wine--offered to pay for it but when we were making up the account denied taking it. I once came in upon him regaling three of his convict friends the Portuguese with our wine. We shared the loss as well as other losses by the same man. Will it be wrong in me to

repay Dr. Kirk, Mr. Livingstone, Mr. Rae, Mr. Thornton + ~~self~~* our losses out of this £50? I think it will suffice to pay all our private mess bills together for we were very moderate, if you say yes. There is no objection to it. I shall do it.

 We got a couple of whalers with the MaRobert, built by a man in Liverpool. They were of first rate quality and only now are worn out. Stem + stern of same shape. The Nyassa boat was made purposely very thin. She is hoisted up to a tree above the cataracts, and we have only one boat now. Could you send us out two whalers? - made strong with lockers behind.

Mr. Gedye begs me to tell you that as Mr. May received payment for keeping stores he will esteem it a favour if you grant him the same. I can say that he is well worthy of it, attends carefully to his duty, and during our absence had entire charge of the ship. He will occupy the same position when we are at work on the road and carrying the steamer. Indeed he took charge of the stores on the way out + not Mr. May.

A naval officer named Burlton⁷⁵ applied for employment--I declined his services. A mixed naval + civil expedition cannot possibly work. This was unmistakeably* evident in May's case. He was assured of absolute command of the Pioneer even if Kirk succeeded me until the pleasure of the Foreign Office were known. "No, no, he would not play second fiddle, +c." And this is the man of whom you said to me before leaving England: "If any of your officers set up their backs as May has done in the Niger, you will be perfectly justified in leaving him on the first island." A master of one of the river steamers might do but with all due respect to the service, I think that no naval officer will do unless it is converted into a naval expedition entirely.

We use quinine wine out of deference to the opinions of greater men. We have plenty now and will send for it to the Cape as we need it.

D. Livingstone

Letter 8

HMS Pioneer 20 Decr 1861

[27 June/62 JW]

Captain Washington RN
Sir

I am sorry to have to report the death of Robert Fayers, carpenter of the Pioneer, on the 17th currt after a fortnight's illness. We have been detained since the 16th November in a most unhealthy part of the river having a large marsh on each side of us. This is the only reason we know for the greater virulence of the Fever for the ship has been kept scrupulously clean above, below, and in the bilges. We did not expect a

fatal issue and feel the loss very much, it being the only death in the Expedition during three and a half years in these rivers.

I have written to the young man's parents and advised them to apply to you about arrears of wages, and any money that may arise from the sale of his tools and clothes, an account of which will be sent as soon as possible. Their address is Mrs Fayers, near the Coventry cross, St. Leonard's, Bromley, Middlesex.

I am +c
David Livingstone
HM Consul

He was attended by Dr. Meller during most of his illness + latterly had the assistance of Dr. Kirk. Dr. Meller's report + post mortem examination is enclosed.

I close this letter and will send an account of the effects of the carpenter in another letter as soon as the sale takes place.

Letter 9

River Shire, 6 January 1862
[27 June JW]

Private

My Dear Captain Washington

We have lost at least three months by the Pioneer being too deep and too long for these East African rivers. I am not disposed to find fault with her as a ship for she is an excellent, strong and well furnished vessel. She is besides a comfortable home for us when we are on board, but lighten her as we may, she touches at five feet. I saw enough of her in the Rovuma to make me believe that she will not do there except in running up in flood and remaining till next season. In the Shire we have abundance of water for her the whole year, up to the Elephant Marsh. Above that it is 4-1/2 feet. We warped her through this for the sake of the Missionaries, and to secure a healthy spot for those who should remain in her while we were away, but we could not come down again till the water rose, for a bank forms at once on our lee as soon as she touches. If it were possible for you to sell her to those Australians to whom you wrote respecting a steamer for surveying, and give us another, an iron one with the price* drawing when loaded not more than three feet we should be able to navigate all the rivers on this coast. Speed is not of much consequence but light draught most certainly is. I mention this not by way of grumbling but in the belief if you can do anything to make us more efficient, you will continue your goodness to us. She leaks not a drop. Engines perfect except a little damage to the paddle wheels, and you could recommend her for strength-- in hulk + machinery.

We shall warp her up again to the cataracts, and keep there till we launch the other on Nyassa. A letter from Col. Rigby⁷⁶ to Sir George Grey says that "if it should ever be found possible to put a steamer on Lake Nyassa it will cut off the chief supply of slaves to the East Coast." To effect this I earnestly pray that the Almighty may spare my life. In view of having succeeded and wishing for an outlet for the cotton away from the Portuguese a steamer of light draught would be an immense advantage. I lay the matter before you and I know that you will not put it as if I did not know what I would be at next. If it cannot be done we shall do the best we can with the Pioneer.

I see that M. Chaillu⁷⁷ has brought home some sixty new birds and that they will be bought by the British Museum. Mr. C. Livingstone + Dr. Kirk have made collections of birds, insects and plants, which are sent home to be kept at the Kew Museum till they arrive themselves. They know that the British Museum has the choice of all, for not taking charge of the collections myself, I always said that these were Government property, and the first offer must be made to the Museum. It occurs to me that many of our birds may be new + might be substituted for those about to be bought, if the Museum authorities would only examine, and take what they wished. The plants are registered by Dr. Hooker⁷⁸ and I suppose that all may be left with him till the arrival of the collector, whose knowledge of the plants will be most advantageous in classification.

The Portuguese have got a small steamer similar to the MaRobert for the Zambesi. This is to secure "all merchandise for the river to be under the national flag," as she will look after the big canoes. The necessity for securing our own outlet by Rovuma becomes every day more decided. If you hear of any disaster befalling us, please suspend your judgement till you hear from us. I shall give you the earliest information possible. I say this because the Portuguese continually get up unfavourable reports--such as that one or two of us has been killed by the natives, or we are foundered on a rock. Lately a report was rife at Mosambique that we were aground in the Zambesi--and again that we were sticking between two rocks in the Shire. The only thing untoward is that delay I have mentioned in page 1st of this. We have lost time by waiting till the river rose--in a part to which it may be said we ought not to have gone.

Thanks for Mr. Petherick's⁷⁹ speech. Our work will be more of a stationary nature for some time to come. Will you send us Maury's work?,⁸⁰ and anything African. The Viscount de Sa da Bandiera⁸¹ has published all that the Portuguese minister could muster of geography "ancient + modern" of this region. It is from all our maps except the Loangua (of Zumbo--Zambesi called Arroangoa by the Portuguese) which is made to come out of the North end of Nyassa! while* Shire arises N.W. of the cataracts! I have only seen a tracing from his map.

Mr. Hardisty valued the carpenter's [Fayers's] tools at £4.10. and we keep them for use.

The river is up and we go down as fast as we can cut wood-- never saw Shire bringing down so much rubbish + so discoloured before.

David Livingstone

Letter 10

HMS Pioneer, R. Zambesi

31st January 1862

[27 June JW]

Dear Captain Washington

This morning HMS Gorgon hove in sight off East Luabo with a brig⁸² in tow, having the portable steamer + Mrs. L. on board. We go out to her tomorrow morning. Captain Wilson⁸³ came in over a very rough bar on account of seeing us here while we had come only to wood, there being but little to be had at Kongone. Rae came with him. He has the tools you mention for roadmaking, which are amply sufficient, and 3 casks of ale for which accept my best thanks.

I am very much distressed to find by your letter of August that you have been led to believe that the naval officer⁸⁴ selected by you for the Pioneer "returned without any reason." I refrained from giving you anything derogatory, and left him to "give his own explanation" but rubbed out the words now underlined at his suggestion, as likely to convey the idea that anything like a quarrel between him + me had occurred, but I never anticipated there would be no reason alledged* to you. I expect that he would put the reason in the most favourable light for himself and was quite willing that it should be so. He claimed to be set over Dr. Kirk + had not a syllable to support his claim. Dr. K. offered assurances that no interference would take place on his part in the management of the ship while I was alive nor after my decease until the pleasure of the Foreign Office should be known. But "Oh dear no, he would not play second fiddle to anyone." Dr. K. could not reasonably be placed under May without an order to that effect, so it became a simple question of justice + fair play. As far as I was concerned, it was Kirk and his knowledge of the country, people and languages, or May without knowledge of either, but a verbal assertion of appointment to a naval position in the Expedition which has no existence. He could not manage a wooding party of natives, so I had to do all that, leaving May to sit on his easy chair. His eye was not accustomed to river work, though he promised to become expert, so I had to pilot him or see the ship run aground perpetually in the Rovuma. And all the claims referred to a time when I should have "kicked the bucket," not over seemly from a weak dawdling whose chances of life were certainly inferior to mine. I have never had a serious illness since my return. Had marched on foot to Sesheke and never spared myself. And as this was the man of

whom you told me in London that "should anyone set up his back as May had done in the Niger I would be justified in landing him on the first island," I thought it was best to keep Kirk + let him go his way quietly.⁸⁵ I respectfully maintain that in so doing I was guilty of no disregard to your feelings, and I very earnestly beg a reconsideration of your sentence against me. I entreat you not to throw us overboard though it is a fact that civil and naval officers never will get on together. Continue your kindness and if life is granted me I shall be no discredit to you. I write this in a hurry feeling very sorry that my conduct, which I still think good, has been disapproved.

D. Livingstone

Letter 11

R. Zambesi, 21st Feby 1862
[27 June / / JW]

Dear Captain Washington

We are going up at snail's* pace in consequence of having the chief portion of the shell of the new steamer on board. Captain Wilson of HMS Gorgon assisted with his men and officers to take the pieces out of the brig and place them on board. We have the boilers + 2 sections in his paddlebox boats. Want of provisions will compel him to return so I write to say that I have taken Mr. Edward Young,⁸⁶ a gunner from the Gorgon, to navigate the Lady Nyassa, at £173 per annum, and he wishes £160 to be paid to his wife, Eliza Young, Providence cottage, Brockhurst, near Gosport, Hants. Mr. Gedye wishes to go home + I regret very much to part with him as he has behaved very well indeed all the time he has been with us.⁸⁷ I engaged also a carpenter and smith who were on their passage home from Johanna. The carpenter is Tyrolese I believe and his pay is £7-10 per month. His name is Augustus Waldman. The smith, William MacLeod,⁸⁸ a Scotchman, is a very good workman. His pay is £10 per month. We have one able seaman + two quartermasters from the Gorgon for the Lake Steamer, and exchange John Neale on account of sickness alone, for William Goldsmith,⁸⁹ a volunteer. A few more hands would have been all the better but we shall do what we can with the natives.

If you can assist Mr. Gedye to another situation you will do a good deed, as he deserves it. He had a severe touch of fever when we were away at the Lake, and I suspect fears another. He would prefer the coast guard but to whatever station you would recommend him I think you would have no reason to regret having done so. He professes regret at leaving and willingness to return, I suppose on other terms. I offered him the command on Mr. May's leaving but he declined, though to obviate his objection I offered to lay down his daily position for him. He said that he must have some one to navigate so I was forced to do it myself though knowing next to nothing about navigation.

David Gwilliam or Gwillim wishes to send (£20) Twenty Pounds to his wife Elizabeth Gwillim, Smith Rope Ground,⁹⁰ Wollich, Kent. He says his pension is not paid so regularly as she requires and he wishes to send this out of his pay. All advances of money +c are sent to be placed against each seaman in the Flag ship.

I have asked Admiral Walker if he will send up a party to set the Rovuma question at rest from the sea upwards. It is very important that this point be settled while the present state of American affairs lasts. The Governor General of Mosambique⁹¹ went up lately with some 3 ships to try + induce the Sultan⁹² to say that the Rovuma instead of Cape Delgado is the boundary between Zanzibar and Portugal. By Col. Rigby's advice the true boundary, Cape Delgado, which to the eye looks 8 or 10 miles south of Rovuma, was asserted to be the boundary. Amidst the multiplicity of points that engross your attention I entreat you to bear this in remembrance: Cape Delgado is the boundary beyond dispute. The attempt of the Gov. Genl. shews that we are right.

Pioneer is too heavily laden goes up very slowly but we unloaded five tons at Shupanga and will make three trips of the whole ship. All our efforts will be bent to getting this vessel on the Lake. Mrs. L. is here and well. Thanks true and hearty for all your kindness to her.

Ever Yours,
David Livingstone

We shall soon be out of all provisions except beans, but hope the Admiral may be able to supply us. Preserved meats are at the Cape. We require a boat or two. Our whalers of 1858 are done.

1st March We cannot carry 35 tons up the river so must unload at Shupanga, put steamer together + try + tow her up. We have been three weeks in reaching Shupanga.

David Livingstone.

Letter 12

Near Shupanga, Zambesi
7 March 1862
[27 June JW]

Dear Captain Washington

We found that 35 tons was more than Pioneer could carry--took out 5 tons at Shupanga and avoided the strong current now in parts of the Zambesi of 4-1/2 knots by going into shallow places. This unfortunately led us aground four or five miles above Shupanga and the river is falling. It is the worst grounding we ever had for we have 100 yards of shoal on our lee or down river from us. I let you know lest you hear something worse. I was unable to do duty when she might have been got off but Mr. Young is

said by Captain Wilson to be "a thorough sailor," so I believe everything proper has been done. This was my first illness since leaving England in /58. We don't know what it was. Feet and knees swelled and were so painful for 2 days that I could not stand. An eruption came out, began with Dr. Kirk and went over us all. Even Gorgon's people took it. I was down three days but am now I am thankful to say quite free of the complaint. I say so much about myself because people at the Cape made me so ill when nothing was wrong whatever.

I have sent a pressing request to Admiral Walker for provisions for we have not a fortnight's food on board, and cannot buy any at this part nor indeed in any part where slavetrade has depopulated the country. I propose, if no vessel is to be sent this way, that the Admiral should freight a small one from Natal--I ask 6 months stores. We have been disappointed in not receiving quinine from you along with the other medicines + ask 3 lbs from the Admiral. We need all this while giving it daily to all hands. We don't see a paddle wheel Boss ordered from Penn when the Pioneer was at the Cape + it is much needed for the other side.

The reason why the Pioneer goes so slow with a load is said to be her engines were placed for 3 feet draught and she never draws less than 4-1/2 now with a load 5. They would require to be lifted up a foot + a half. We shall put the new steamer together at Shupanga and tow her up to the cataracts. I doubt Hardisty's zeal.

A gentleman has been sent out by the Free Church of Scotland to obtain information with a view to a mission on Nyassa. As this will not interfere with the bishop, I invited him to come up and see the country and people for himself. His name is Revd. James Stewart.⁹³ There is room for all in that region, and it is questionable whether the bishop has not blocked up his own way Northwards by attacking the Ajawa, who now possess all the East bank of Shire from the cataracts up to the Lake. His sister,⁹⁴ a confirmed invalid, came up to him. Captain Wilson seeing how slowly we got up--(3 weeks to Shupanga! last year 2 days only!) acceded to her request to be taken with Mrs. Burrup,⁹⁵ (another of these missionaries) forward to the Ruu in his gig. The bishop engaged to be there but did not appear + Captain Wilson pushed on to Chibisa's, the invalid being more dead than alive. We expect him daily on his return and when he does so I shall give you the latest intelligence.

I feel it rather too much to have to give passages to all the missionaries. I was willing and anxious to do all I could for them + am still willing, but it is a serious draw back to our own success. Rev. Mr. Proctor wanted to come down for a wife,⁹⁶ + the bishop proposed to come too. I had to tell them that the Pioneer was not a passenger vessel. It is a serious tax on our own stores. Mr. Stewart offers payment for everything, has

calico to buy his own provisions and works at whatever he can do. Some of the bishop's people believe that they have a right to everything here and on board the men of war which causes grumbling among the officers.

You nearly had a serious task imposed upon you. The only way my daughter could concieve* of to keep her Mama at home was to threaten to write to you and ask you to lock her in a room. She went the length of writing to her Mama + telling her that she was thinking of doing it!

10 March at Shupanga unloading. I have to spend more money than I anticipated in buying country provisions. We have nothing but a ~~little flour--a cask said to be beef by Mr. Gedye turns out to be one of vinegar!~~* beef found on 17th March. We shall be two months putting Lady Nyassa together--will tow her up to the cataracts + there unscrew her--probably we shall have food before that from the Admiral--so no uneasiness need be felt. There too we can get plenty of native meal, goats, fowls +c.

I may have mentioned already that I offered the charge of the Pioneer to Mr. Gedye at Johanna, + he refused it on the plea that he could not navigate. I offered to lay down his positions for him + point out the course but he again refused to take charge = so the subordinate position he occupied was his own choice.

Mr. May refused fowling pieces. Two we brought are broken. I send up to Tete to bring our things away, in canoes. We have plenty of ammunition there.

D. Livingstone

Letter 13

Kongone, 17th March 1862
[June 27 JW]

[Salutation omitted]

Captain Wilson returned to Shupanga on the Evening of the 14th bringing the sad news that the bishop and Mr. Burrup are dead. A new route from Ruw to the mission station was found necessary as the Pioneer could not well go up to Chibisa's. The bishop wished to come down in Novr. + explore from Ruw upwards but continual rains induced me to object very strongly to his going as he would certainly have been knocked up + he had only one man with him. It was well he yielded for we were detained 6 weeks with a marsh on each side of us long before we came to the Ruw. Subsequently he sent Scudamore + Procter to explore and they went away Eastwards to the Milange mountains instead of Southwards as I directed. I told the bishop that Mount Clarendon must be kept well on his left but they must have had it on their right. A chief attacked and plundered them and the bishop called some Makololo who remained at Chibisa's instead of going home as I directed them went + attacked the plundering chief + burned his

village.* The Makololo took away his goats. Afraid to go further among that tribe (he was at the source of the Ruo) he returned + with Burrup came down Shire to meet his sister + Mrs. Burrup who were coming up in the Pioneer--canoe was overturned we suppose in an eddy-- bedding + medicine tea coffee +c +c lost--came on to Ruo in wet clothes + devoured by myriads of mosquitoes--a fortnight after the time appointed.* We looked out for them two days a mile above Ruo and enquired among the natives but no word of them so we passed the Ruo on the day they ought to have been there--but to resume the narrative--after the canoe accident they came to the Ruo--were kindly treated but fever attacked the bishop and without treatment or medicine died.* He left his station with diarrhoea + it never left him--Burrup too labouring under diarrhoea returned to the mission + died. They have had much diarrhoea and dysentery among their people 20 or 30 of the children have died.*

The bishop is a great loss--+ I fear the effect in England will be sorely against us all. Burrup + he were the strongest of the party and neither could believe that aught would hurt them. The bishop wrote in a letter to the Cape that the "Pills were worse than the disease." In this joke we see that he thought little of it, and we now mourn his loss in consequence⁹⁷--all loved him. He was very amiable, too much so I fear to be a leader of men as we find them.⁹⁸ A new head must be sent out at once or the mission will break up. There are differences among the missionaries which I will not conceal from you, which can be dealt with only by an authoritative head. There is no one to fill a bishop's place. The romance of the thing has passed away and hard prosaic work does not go down nearly so well. Indeed some seem to have come out merely to make a good thing of it by book writing.⁹⁹

We have received 20 boxes of preserved meats from the "Ariel"¹⁰⁰ a great help as now that it is known we are in want we must pay enormously for every thing--£1 per sheep for instance the regular price being four shillings. Captain Oldfield has arranged for our Johanna crew to be sent to us in May next. We are putting Lady Nyasa together at Shupanga and hope to tow her up in June to the cataracts.

We take 2 mules from the mission--making our number four. I have asked Admiral Walker to send up 10 oxen if he is sending a coal vessel up.* We have no tsetse except at Shamo and we pass that in the cold season and will escape the bite. Calico getting very low but I shall buy some from the Portuguese.

Important

The Governor General of Mosambique went up a few months since to Zanzibar and tried to induce the Sultan to consent to Rovuma being called the Portuguese boundary, but the Sultan being instructed by our excellent

consul Rigby said "No Cape Delgado is our boundary." Finding himself frustrated he made a commercial treaty + returned to Mosambique. Rovuma is therefore ours. I have asked the Foreign Office if possession ought to be taken in name of Her Majesty of our discoveries. Can you do anything by the way of clenching the boundary to Cape Delgado? Admiral Walker might send boats up while we are working with our steamer.

Major Sicard is made commandant of Mazaro + Shire! His watch has arrived. Portuguese all kind as usual. No one said aught about our liberating the captives. Major Sicard from whose slaves we took 84 captives gave us three sheep + two boxes of biscuits first time we met and he has now sent down for an additional supply of medicine to that I gave then.

I see that Du Chaillu's birds have been bought so Dr. Kirk's birds had better not be distributed till he comes home himself = I should like authority to send my brother home, his time having expired.

Please give Dr. MacWilliam a copy of the treatment and post mortem of the carpenter as enclosed in another letter. Dr. Meller goes to the Cape for change of air on account of enlarged spleen and remittent fever. He is an invaluable man. £2 14 the proceeds of the sale of the carpenters clothes were sent to the flag ship to pay for the slops he drew.

Mr. Rae brought a good carpenter + joiner from Glasgow called John Reid.¹⁰¹ I enclose a request to pay part of his salary to his father in the way that may be most convenient.

Captain Wilson + his officers have been most kind and obliging. They hoped to be able to help to land the hull ashore at the cataracts which would have been a great lift to us. I cannot believe that the Pioneer cannot carry 35 tons, list or no list, but she must have an engineer who does not leave the driving entirely to the stokers. I have not written to the Admiral about it, but have desired Captain Wilson to report what he saw and heard.

This goes by way of Mauritius in the brig Hetty Ellen that brought the Lady of the Lake.

We are all well--thanks to Him who rules over all. Several have had fever. I send to the Cape for wine for quinine. I think that the stimulus to the stomach in the morning does good.

David Livingstone

Letter 14

Kongone, 24th March 1862
[27 June JW]

Dear Captain Washington

It is clear that we must look out for a new Engineer--Hardisty is

determined to get away by a quarrel. The first appearance of the wish occurred when we came down to the East Luabo lately--there is a bank called by Mr. Inglis¹⁰² in his late survey an "inner bar." We ran aground on it at low ebb and resolved just to wait till the flow. I told Mr. Hardisty to have steam ready at that time and when she began to float all were at there* posts but him--not knowing this I simply called down "a turn astern" and off she came. Having anchored a quarter of a mile from the spot to cut wood + wait for a man of war, Hardisty came aft to the quarter deck and demanded "Did you give orders for the engines to go without a calling of me?" I replied yes, I gave orders to you to have the steam ready and did not know till now that you were not at your duty. "Well I wish you to get another Engineer if you are going to treat me that way." I told him that he was guilty of the impertinence because he thought himself indispensable, and an hour afterwards he came and apologized. I would not have referred to this but it is evident that he had made a mistake in his action then, and has gone to work more systematically since to make himself a nuisance, in order to get away.

We failed to carry 35 tons. It is quite true she was top heavy + listed over often, but we left Johanna as deep and had 26 tons of coals + nearly all the mission gear on deck, yet came up to Shupanga with wood in 2 days of 20 hours steaming--now we took over three weeks though half the way we had coals. We took out five tons and dismissed the paddle box boats yet could barely stem the current in parts 4-1/2 knots. We could barely make one knot over the ground though going in the shoal parts out of the current. Her speed ought to be at least 8 or say seven. Well even that would give about three over the ground,¹⁰³ but every one saw the Engines were not properly worked and I suppose some of the 6 officers of the Gorgon had let Mr. H. know what he* thought. We came several times to a stand still, and observing Mr. H. sitting on deck quietly smoking I asked him what was the matter with the engines. "Its the list over" was the reply. He then went into the Engine room and made them go better. An hour afterwards the same thing occurred + I saw Mr. Hardisty lying on the Engine sky lights asleep. I asked him why he did not attend to the engines. He went down again + an hour after that went on the sick list! Mr. Rae then screwed up the packing of the cylinders + mended the feed pump which unknown to me had been left broken all the time we were lying wooding at Luabo and while loading in the Kongone--and the speed was increased by four revolutions per minute. Of course pumping in cold water had been so much loss of fuel. Mr. Rae suspected that a certain valve was not working, but Hardisty soon came out of the sick list + we were reduced to our former speed. When we resolved to unload a deal of tinkering took place in the engine room, and knowing the Engineer to be very touchy I refrained examining* what was done. But we came down to the

Kongone from above Mazaro in 8 or 9 hours shewing* a speed or* at least six knots--10 with the current over the ground. And then Mr. Hardisty came and said "I wish an inspection of the engines and as you are dissatisfied with me send me home." This after the tinkering and after I had carefully abstained from saying a word to him. I replied that I had been disappointed at not getting up and receiving the assistance of the officers + men who had come with us, but had never uttered a word of dissatisfaction to him. I confess that I felt it but never expressed it or shewed it. He has since set up his back against Mr. Young and answers him in the most impertinent way. For instance, Hardisty had placed several bags of charcoal on the boiler casing and Mr. Y. in giving the whole ship a thorough cleaning + white washing asked me if he might place some small boxes of shot on them till he found a better place. I replied yes. When Hardisty saw that he came and bawled out before Captain Wilson and his officers to me that "he had received orders (I suppose he meant from you) not to allow anything there, and if you dont allow me my position in the ship, send me home. Captain Washington garaunteed* me here only one year" +c +c +c.¹⁰⁴ Of course I adhered to what I had allowed Mr. Young to do feeling sure that you had given no such orders + no one else had a right to give any. He has also sat at table contradicting everything he can say a word against--no one replies--and has besides tried to create disturbance with Mr. Rae by the falsehood that he had been asked to put the Lady Nyassa together.

Captain Wilson who has been a witness of his impertinence says that he will tell the Admiral and another Engineer will be sent up. I see plainly that matters with Hardesty will get worse + worse, and will be glad if another is sent by the Admiral who will be amenable to naval discipline because while Hardisty is here I shall make him do his duty though it be by bread + water or leaving him on an island. He expects that he must get a years pay whenever he leaves--if that is the case it ought to be altered. He has taken to this course of conduct entirely unprovoked¹⁰⁵ + in the opinion of us all is inexcuseable.*

David Livingstone

Letter 15

Kongone 1st April 1862
[27 June JW]

[Salutation omitted]

I take the liberty of requesting Captain Washington to favour me by paying the sum of Fifty Pounds (£50) annually to my Father John Reid, Isle of Whithorn, Wigtonshire from my salary as Carpenter + Joiner with Mr. Rae in the Zambesi Expedition under Dr. Livingstone.

[signed] John Reid

In presence of David Livingstone¹⁰⁶

Letter 16

HMS Pioneer off Kongone

3 April 1862

Dear Captain Washington

[27 June JW]

The Gorgon left this in a storm while Captain Wilson was assisting us up the River. Went to Mosambique and there the Pantaloon being disabled sent her to Johanna for provisions. Captain Wilson has now given us six months provisions and all the preserved meats you kindly sent.

We have received all the tools we need for the road, +c, and being well found* in food will now set ourselves with all our might to the one great object of transporting the steamer to the Lake.

The failure of our stores for but a short time involved great expense--the rum for the men was done and fearing that we should get no more for them till May I purchased Wardroom mess rum to the value of £21. Our quinine wine is also expended, so to carry on the expenditure of wine and quinine for the sick I bought the cheapest of the expensive wines of the Mess for over other* £20, and hope this eight dozen will suffice till we get a supply of cheap Cape wines which have been ordered. The purchase of expensive wines on pressure by the fear of being blamed if we should happen to be without cordials has run away with the money on hand. I have drawn £50 from Mr. Sewell,¹⁰⁷ paymaster of the Gorgon and fear this will not clear off my bills for calicoes ordered from the Portuguese. I have made advances to the men as wages also from private sources, and may have to do the same to pay our Johanna men their years wages but will let you know all about it. This is chiefly to advise you of the above £50.

Yours +c

David Livingstone

We towed the brig over the bar yesterday. Gorgon leaves and we go in tomorrow morning. Some dysentery has troubled some of the men lately--possibly from eating beans while our flour was done.

Letter 17

Shupanga 5th May 1862

[18 Sept ack'd 3 Oct JW]

Private

My Dear Captain Washington

With a sore heart I have to tell you of the loss of my bosom friend

of eighteen years. She died on the 27th the complaint having the worst complication--continued vomiting by which all the remedies were rejected. We have been three months down in the Delta instead of as I anticipated three or four days. I bitterly regret now having consented to her coming this time, but matters have taken a turn so utterly beyond my controul* that I bow to the will of the Almighty Disposer of events. I thought that Lady Nyassa could sail out + on reaching Kongone cut wood + steam up to the cataracts but she might have been lost. When Captain Wilson volunteered to help us up to the cataracts I thought all would then turn out right--we should only be a week or two down here. But Pioneer as I thought failed to carry 35 tons. We landed the Sections at Shupanga there was some tinkering at the Engines and we came back to the sea in one day. We took 3 weeks to go up--I still at that time put the blame on her having been over-loaded--she was down to five feet. But Gorgon had been driven away and during seventeen days we were detained at the Kongone nothing was done to the Engines. After the Gorgon had left the air pump was opened, and happening to go down I saw at least a quarter of an inch of sand round the plunger + it had worn a great way into the cylinder on the working parts. The trunnions which had not been packed for 20 months were repacked then and we were detained a day + a half while that was done. We went up to Shupanga with a load which brought her down again to 5 feet--in 2-1/2 days steaming we grounded a day. Now it is not the Engineer's fault that we go aground, but the feed pump ought to be disconnected at once and the boiler supplied by the donkey engine. She ought not to be allowed to pump in sand. When the other valves come the engine will be quite safe. I tell you all this without one ill feeling towards the Engineer, he has become respectful again + probably he was irritated by some of the officers of the Gorgon as it is evident he does not feel kindly towards the service. But I think it only fair to explain what without any engineering knowledge appears to me to have been the cause of the wretched failure of the Pioneer in carrying 35 tons. The list is nothing, as in a seaway she would always list.

Gwilliam the quarter master + Hardisty have always been at variance + having come to words lately Gwilliam assaulted Hardisty and I have to give Gwilliam over to a man of war for trial.¹⁰⁸ I am very sorry for Gwilliam for he behaved well during our period up the river and is a good hard working man. When in drink however he is bad. While among Portuguese the men do get drunk and we had much dysentery + illness. We could not get much fresh meat except at enormous prices + having no flour the beans cause irritation of the bowels. We part with a number of the men, when we meet a man of war about the end of this month.

John Hutchins, quarter master invalidated from being subject to dysentery¹⁰⁹--Wheatcroft quartermaster master* for Lady Nyassa an inveterate drunkard disrated + reduced to single pay--Nolan a stoker never

did a day's work since he came nor it is said any where else--single pay from beginning--Waldman a cooper intended to be carpenter but quite useless. He was on his passage to the Cape and I shall send him off. He is not a man of war's man. Macleod a smith--a very good + well behaved man--a civilian.

Mr. Rae put the hull together in a fortnight with but a very few hands--but for the sad event which casts a gloom over all my horizon I should have felt delighted. I cannot spare my brother though I thought of reducing our expenditure by sending him home. We shall need every hand at Road making + carriage. We have about 4 months provisions. We received the preserved meats you sent but the ale by 10 dozen remains somewhere. I feel sorry that your kindness is stopped in its flow, where I cannot divine. We received it but twice--eight was the number in one, the other much less. It surely could be traced. It would have saved us a great deal of money. I had to buy Mess rum for our crew at 10/ per gallon. I would have let them want rather but thought at the time we should get the sections up to the Cataracts and wished to give them their grog while working ashore.

I shall enclose my accounts in a letter which will go to the Cape in July. Mr. Young is going to give quarterly accounts of expenditure as we ought to have done all along. We have no forms for it. I am a good deal out of pocket at present and have not enough private money to pay our six Johanna men who have now served 13 months. If we get 12 more when these leave we shall do with but few Europeans. Captain Oldfield has promised to send them. They have never once been sick until lately.

My poor wife had made ample provision for making Lady Nyassa a comfortable home for us all. We find evidence of this in her boxes. As a great deal was new I have selected the best and any keepsakes for her daughters and send them in three boxes, to the care of Mr. Frederick Fitch. I have taken the liberty of addressing them to you. We took plenty of table linen + towels for the Lady Nyassa.

I am +c
David Livingstone

Please give the sad intelligence to my friend Mr. Conyngham¹¹⁰ of the Foreign Office + Remember me most kindly to Mrs. Washington.

PS I would just add that the water is still high but falling fast. I think we shall get up the Shire in June--We have a fair prospect of being able to do our work comfortably. Dr. Kirk + C. Livingstone went off this morning to Tette to remove our things by canoes.¹¹¹ The Portuguese have said nothing to us about our freeing the captives + we say nothing to them. We are good friends still--I gave Major Secard his watch--the other would never

work. I suppose it had been knocked--if repaired I shall buy it if you please. Waller¹¹² was down here + left on 3d with all the mission goods in canoes. A report says that the missionaries contemplate retiring down to Chibisa's--a bad movement to come down to the lowlands but some are faint hearted. We carry no more for them as it is out of the question.

Letter 18

Shupanga 15th May 1862
[30 October 1862 HOS]

Dear Captain Washington

In prospect of our Johanna men leaving in the end of February and our soon getting up to the cataracts I took two quartermasters Thomas Magrath + George Wheatcroft from the Gorgon for the Lady Nyassa and one leading stoker James King with one 1st class stoker Michael Nolan--also one ordinary seaman Whitehead, believing that they would be necessary for the safety of the vessel till fresh Johanna men for whom I have applied to Mr. Sunley HM Consul¹¹³ should arrive. I considered that we could scarcely get on in the transport of the sections without some men on whom we could depend. With a view to aid Mr. Rae in any breakages that might occur in the overland passage I took William Macleod an excellent smith and Augustus Waldman a cooper, civilians on the passage to the Cape, i. e. seven whites instead of six Johanna men. The latter we have been unable to send away though they were to serve but one year as a trial, but we expect a ship after 20th currt to receive them.

In consequence of our long detention down in the lowlands and the fact that some of the men have in spite of everything got vile Portuguese spirits we have had an unusual amount of sickness and the smallest quantity of work as the result. Wheatcroft an inveterate old drunkard was disrated by Captain Wilson before he left, and for drunkenness and most disgusting language to Mr. Young I reduced him to single pay, and will hand him over to the next ship that calls. Nolan--always sick + useless when for a day or so he is put off the list--has never done well in any ship he has been in. He must go with Wheatcroft.

David Gwilliam our other Quartermaster has been a most useful hardworking man--has had very fair health and never spared himself but got drunk and as Mr. Hardisty compelled King always to remain in attendance on him doing anything or nothing, Gwilliam like an old fool used foul language to Hardisty by way of standing up for the oppressed--used foul and disgusting epithets and took hold of Hardisty by the beard. H. very naturally struck him to free himself. The evidence is quite conclusive against Gwilliam and I am obliged to hand him off as the Captain may advise for court martial. I am sorry to part with him as away from drink he is invaluable.

John Hutchins Qr. Master has been a long time with us + generally very well behaved but he has had dysentery twice--the last time so severely that though is* working and active, medical opinion says it will not be just to the man to keep him longer. He must be invalided.

William Rowe has been Leading Stoker and storekeeper--drove the MaRobert after Mr. Rae left and kept our stores with the strictest honesty. His services have been very valuable. When Mr. May came with the Pioneer I hoped to follow my work chiefly on shore while Mr. M. did what could be done in the ship. I looked to Rowe to manage our domestic affairs ashore and continued the storekeeper's salary of £150 with that view. Now, that a person of his probity would be extremely serviceable to us at either the upper or lower end of the cataracts I am sorry to find that he wishes to go home. I dont think it well to detain him. His time in the navy is nearly out and he complains of a pain in his side--from a pleurisy long before he came to us. He offers to come out when free from the Navy but I shall not require him then.

If the Johanna men come we shall get on very well without Wheatcroft, Nolan and Waldman, but two Quartermasters seem to be necessary, instead of Gwilliam and Hutchins. Mr. Rae says a common stoker will serve him as well as Rowe. We shall part with Whitehead too to reduce the Europeans as low as possible. The Johanna men never get fever. We never had so much insubordination as during these last three months, and it is quite inexcusable* as Mr. Young is a thorough disciplinarian and looks sharply after them. I complained to the Governor of Quillimane about the Portuguese officer at Kongone¹¹⁴ converting what his Government calls a custom house into a grog shop, and he reprimanded him and referred the case to the Governor General of Mosambique.

Magrath promises to turn out a very good man and so does Goldsmith, who exchanged with John Neil A. B. Macleod the smith is a capital Mechanic and a good steady man and John Reid is equally deserving. No one ever took anything like the amount of labour off my hands as Mr. Young.

I mentioned in a letter which went by the Gorgon in April the strange turn in Mr. Hardisty's conduct, and I foresaw that he would make himself as disagreeable as possible till he got away. It was so different from his previous mode of working that I felt confounded by it. It is all plain now. You had guaranteed* him for twelve months only, but forgot to let me know. At the end of that time he had allowed the engines to go thoroughly out of repair + wished to have done with them. Instead of telling me so, he tried to provoke me by impertinence at table before Captain Wilson + his officers, going quite out of his way even, to contradict me when

he was taking no other part in the conversation. I took no notice of it, except as I told you, agreeing with the Captains wish to tell the Admiral + let him send another engineer. Well, hoping to be soon out of the delta I gladly accepted the help offered by the officers of the Gorgon to load + help us up to the cataracts. Mr. Hardisty said that ten tons of coal were sufficient for our purpose, but unknown to me he had the feed pump broken in January, and he had two men pumping in cold water into the boilers in February. This caused a great waste of fuel--till seeing Mr. H lying asleep on the Engine skylight I asked what was the matter with the engines that we could not go more than 1/4 a mile an hour. "Its the list over" said he, and soon after went into the sick list, saying to Meller I think I am going to have fever.* I asked Mr. Rae to go down and he soon made her speed increase--mended the pump pin which was broken in about three hours and saved the poor fellows the unmerciful toil of pumping. Mr. Rae has told me since I found out the state of the engines that he never in his life saw engines in a worse state. The packing in the different parts had never been renewed, and the nuts were screwed home. "He did not like to interfere." Well we were seventeen days down at the sea during the whole of which time Mr. Hardisty did absolutely nothing. We towed out the brig Hetty Ellen, and when on the middle of the bar the Engines failed us for a time and we were nearly in the breakers. When we returned he took off the cover of the air pump and going down on the Inspection day I saw the plunger packing covered with 1/4 inch sand all coloured green by rubbing on the inside of the brass cylinder. It (namely the inside of the air pump) was grievously* worn away. The trunnions had not been packed for 20 months, and air had been sucked in instead of water. The consequence was the old packing was like tinder and had to be picked out with a knife, and the India rubber valves were burned, curled up and would not act. No wonder then we could not get away from the Delta. In April I loaded her rather more heavily than when we took three weeks to get up to Shupanga, and we went up in three days. She drew over five feet too. We went down again and took all the remaining things of the Lady Nyassa--were again as deep and had purposely a list too from using one bunker's coals exclusively for a while. We did the distance in three days of ten hours each and but for the loss of a good half day by searching for a passage where the channel had changed, would have done it in about 24 hours steaming. The ten tons of coals were expended in the first case when we were a little over half the distance to Shupanga--then the expense of purchasing wood--and cutting it was enormous for we had to send up to Shupanga for our fuel and hire canoes to bring it down. Four months in the Delta where we should not have been more than a week, have entailed an unusual amount of sickness upon us. Fever + dysentery have never left us til now, but fortunately with no fatality except that which has darkened all my horizon. I have said nothing nor will I say aught of harshness of Mr. Hardisty. He behaved well up to the time

that unknown to me he felt himself unequal to managing the Engines. He never had charge before except as a third Engineer in the Navy.

If we had not ran* aground in January the sand would not have got in there--the fault may therefore be traced to what cannot be avoided in a river where the channel shifts, but the pump ought on touching to be disconnected at once, and the boiler supplied by the donkey engine. Instead of which the pump was allowed to work till it was choked by sand + broke, the donkey E. being idle. Then as Mr. H. said the sand would work itself out of the air pump but instead of taking it out himself, he allowed the materials to be worn and damaged. I trust you will not consider me wrong in letting him go. With him it is a perpetual attempt to thwart Mr. Young by keeping the Engine stokers away from every other work. When we are going he stalks about the deck the whole day, + never goes below to the Engines, and while I write he sits washing his clothes.

Mr. Rae ill of dysentery and the Lady Nyassa standing still though nearly ready for launching--the four stokers kept out of the way doing I know not what. A parcel of tools was bought by James Young of Glasgow + sent to the Pioneer for Mr. Rae. Mr. H. will not lend them even. I am not disposed to quarrel with any one but I feel it rather hard to have the work hindered in this way.

I am +c.

David Livingstone

Letter 19

Shupanga 21st May 1862
[30 October 1862 HOS]

My Dear Captain Washington

I wrote you before of the late attempts of the Governor of Mosambique to extend their boundary to the Rovuma, but feel so anxious that you should know about it that in case my previous letter may have miscarried I trouble you again.

The Governor Gl said to Mr. Rae that he was not very well recieved up at Zanzibar when we went up to "extend their territories" the ipissima verba he employed. He wished the Sultan to agree to Rovuma being called the boundary instead of Cape Delgado but Col. Rigby's influence prevailed to prevent the weak Sultan from agreeing to what is evidently intended to forestall us. The word "extend" shews what the best informed Portuguese think of our friends Arrowsmith + Macqueens¹¹⁵ dicta on the Portuguese boundary. The Governor General did not believe that Rovuma belonged even nominally to his nation. Captain Wilson had the very same version as Mr. Rae, and indeed I got it first from the Captain. Now dont omit to tell me whether I am to take possession of our discoveries

formally in the Queen's name. Our flag was the first that ever floated on Lake Nyassa. I have asked Lord John Russell¹¹⁶ the question but possibly it may not be deemed expedient to authorize me though no fault will be found if I do it, as if spontaneously.

Not a word has been said about our freeing the captives. All the Portuguese are as civil as ever. Ten slaves whom I employed in the belief that they were free men + did not discover the mistake till we were up the Shire, entered into the work of freeing the captives with great zest. I paid them handsomely and as they had the muskets of the Tette people from whom we took the Manganja captives, I feared that they might suffer but nothing was done, and their master Mr. Farrao¹¹⁷ of Senna whose people they were wrote to say that he was glad his people had been useful. His people can scarcely be called slaves for he always pays them for any work they do.

But the Portuguese have got a hair in our neck. The Gorgon's people on returning from this misbehaved when drunk at Vianna's¹¹⁸--I apologized most amply and so did Captain Wilson and Vianna would scarcely receive an explanation--"It was only a little wine" +c, but the Governor of Quillimane¹¹⁹ wrote me an official letter from the report of another than Vianna but trusts that the Portuguese officials and I will continue in the same friendly terms as we have always been. I have to explain to the Foreign Office in case he sends the affair home.

I am +c
David Livingstone

Letter 20

6th June 1862 Kongone
[30 October 1862, both]

[Salutation omitted]

We must go up + launch the vessel and come down again when a ship arrives with our Johanna crew and provisions. I am sorry for this grievous delay but no vessel has been able to call between 20th May + 1st June.

We beached the Pioneer + recoppered here* stem which had been torn by the anchor + by touching the ground. The boilers were emptied but it strained her somewhat. We are sadly in want of caulking + paint.

A note from Dr. Kirk at Shupanga to which he came from Tette on 26th ult. says that the Governor of Tette¹²⁰ was remarkably kind and hospitable keeping open house for him while there. One evening he touched on our liberating captives from his slavehunters on the Manganja and said that he had corresponded with his brother the Governor General of Mosambique on the subject + that the Governor General said "the Portuguese

law allowed it and when far beyond Portuguese power the slave hunters must repel force by force + in so doing they would only be defending themselves from robbery." This is the man who tells all our officers how much he hates slavery and all except Lyons Macleod¹²¹ believe him. It is virtually authorizing his brother at Tette to do as much slavehunting on* our footsteps as possible + he will screen him through it all.

We understand that the Governor of Lisbon has decreed that all children born of slaves are free + slavery is to cease in nine or ten years. The Governors here work with great duplicity and as I suspected wish to work us out. All however is fair outside.

A private called Belshore¹²² was seen by the Dr. at Shigogo with a horde of armed negroes. He has driven Chibisa away and depopulated the country where Chibisa was opposite Chiramba--Zambesi. He is now going to the mission on pretence of asking Dickenson¹²³ to cure him of blindness, the effects of venereal disease. He will destroy all the villages on the right bank of the Shire and pay himself in slaves. Then the Governor of Tette will come in, disallow it all, and claim the country as Portuguese by conquest.

I am glad to hear from Rae that you knew + had taken precautions about the Rovuma before I knew. The change at court is in our favour. We shall go to Rovuma as soon as we launch on the Lake.

D. Livingstone

While beginning a trade in cotton on the Lake we think no time need be lost as to commencing one in wood on Rovuma. The Ebony close to the bank was as thick as a man's body + other woods suitable for shipbuilding seemed abundant. We saw no Lignum vitae in the first 30 miles but good dye wood--this seems to be feasible if we have our health. We hope to take Pioneer round next flood.

I hope you will excuse my troubling you with the watch I sent home. Gedye owes me £20 and Hardisty £6 of private money--from these sums the price will be taken and if repaired I shall feel obliged if you give it to my daughter Agnes. Possibly the maker will be able to put it to rights better than any other or give another instead.

Excuse my troubling you thus.

David Livingstone

Letter 21

East Luabo, 22 July 1862
[30 October 1862 HOS]

No. 2

My Dear Captain Washington

I have given a set of bills to Sr. José Mellitão Nuñez¹²⁴ of Quillimane for £42 - 10. dated 29th May - Book 812, bill 2 and another set for £51 - 10 dated 15th July book 812, bill No. 3. (both at Par.) to Senhor Manoel do Lima Vianna.

The amount given to Mr. Nunes was for 2 bales of calico, 15 sheep, some bags of rice, Canoe and native hire to bring wood and coals in our attempt to carry up Lady Nyassa's sections and to bring away our goods from Tette. Also £10 for two small casks of wine at £5 each. I still owe him a little for fresh meat, +c. Our detention so long down here has been most expensive though I have exercised the utmost economy. You may understand the difference of expense here and up the Shire. Here we have to pay £1 for a sheep there we get one for 2 shillings worth of calico. Having much sickness we had to hire natives and paying them at the rate of 6d per day in calico a great deal of that has been spent. Rae had dysentery and I had to take him down to the Kongone to breathe sea air. When we went on purpose to meet a ship with a new Johanna crew and provisions something had occurred to prevent Captain Oldfield from fulfilling his promise of sending one at the appointed time, so we went up about 12th June, Launched the Lady Nyasa broadside on, and put everything into her. The ways were palm trees, and we were ready to go up the river but no Johanna men arriving and no provisions, we must go in search of them to Johanna. In coming down we ran aground three times though we had a boat sounding ahead. This leads me to think that we had better go to the Rovuma + spend the two months which must intervene before the river rises in November in boat exploration of that river in preference to threading our way up the Zambesi + Shire at low water--but I shall let you know definitely from Johanna.

I was very unwilling to believe that Mr. Hardisty had so shamelessly neglected his duty as I now see he has done. The paddle shaft bosses gave way at Rovuma from sheer neglect, and caused the engine to shake so that the nails came out of the copper below. Mr. Rae put glands on and secured them and us from a general smash. Hardisty said to him that he (Rae) would by touching them let himself in for a month's work. Rae finished them in 2-1/2 days and is going to make new ones of Lignum vitae which is coming into fashion now. The Rudder was cracked + Rae proposed putting hands on it--Hardisty went about saying in his nasty way to the men that Mr. Rae might as well pump slup on it as try to mend it. He made it stronger than ever in exactly two days. The boss of the paddle wheel was broken in going up Shire by striking against the bank. We were at Chibisa's from the beginning of July to the 15th November. Hardisty excused himself by say* our forge would not heat the plate sufficiently to bend it for a patch. I got another forge, and a smith from the Gorgon bent the plate, but still it was unmended. I asked Hardisty how long he would require to

put on the plate--three weeks, but he also said publicly that he was not to be expected to mend anything that broke. He had done more in that way than he ever intended--"An engineer is not expected to work as a tradesman" +c.¹²⁵ Rae mended the whole thing now become much worse by neglect in two days. When just about finishing this job, though Hardisty had been going about trying by talk to make Rae give it up in disgust, He came to me and said that he felt well enough to work; I replied, "I shall not require your services anymore" and he replied "Thank you." Rae has behaved nobly all through. He said to me, Captain Washington asked me if I were willing to do anything in my power to help the Expedition, and I replied yes, and I always have been so but I dont like to hear Hardisty talking in the way he is doing to the men. To put a stop to it I relieved him of all charge in the way I mention, about the beginning of this month. I hear that he has made a drawing of the way he tied up the wheel in order to utter the monstrous falsehood that he was prevented by me from mending it. I shall give you the evidence of the stokers to the contrary without letting him know. The only thing I prevented him meddling with was the condensor,* as he wished to send it down to the Cape to be brazed. Mr. Rae + Macleod fitted + brazed all the pipes requiring to be fitted, and it is to be put in today. The air pump will require to be rebored, as Hardisty left the sand when once in to "wash out again"! If Mr. Penn recommended this man he has little regard for his really splendid engines. The leading stoker King is a far better engineer than Hardisty. He allowed everything to go wrong when a very little care would have kept all right.

A young man called Campbell¹²⁶ with Tod + Macgregor is said by Mr. Rae to be a good hand. I knew him in my younger days. At present we shall do well with King and you might increase his salary if you think it right. Rae takes the superintendence--Reid and Macleod are excellent and willing workmen.

When we came down in May Hardisty was at death's door, and had that baffling symptom continued, vomiting, which in the case of my poor wife rendered our remedies unavailing*. Dr. Kirk and Mr. C. Livingstone had been sent to Tette for our luggage, and I had medical charge--Meller being at the Cape on sick leave. A blister put on the stomach to relieve vomiting filled with serum as dark as bile and he became deeply jaundiced. 20 grains of calomel as a last resort brought away immense quantities of bile and saved him with however severe salivation [salination?] from cold afterwards. I mention this purely medical subject to you as I expect to be blamed for as in my heart I believe the saving of his life.

We cut wood at the Luabo at that time and went out over this bar, it being quite smooth, +2-1/2 fathoms--and came in by the Kongone. When on the sea she steamed with ease eight knots, and Rae says were her engines lifted a foot or a foot and a half she would give a much higher rate than she did on the trial trip.

If we could get a dozen draught oxen from the Cape we would transport the steamer at almost 20 miles per day. They cost about £10 each. The two mules died at Shupanga and I propose to use other* two which were brought for the mission. Shupanga we find now from the Portuguese is peculiarly unhealthy--they might have told us sooner. They say not even pigs can live there. There are no tsetse and none at the cataracts either. We never had so much sickness before. We cured the fever quickly but it returned again + again to the same patient. It was like treating patients in ill drained or overcrowded dwellings and we could not get away from the lowlands. We have good health at present as it is now winter, and as the Johanna men scarcely ever suffer we shall trust more to them than to Europeans.

A Lieutenant Burlton¹²⁷ about whom I wrote to you in April last, stating that I did not require his services, did not wait for my answer to himself to the same effect, but came up to Quillimane by the Pantaloon.¹²⁸ He brought no letter from the Admiral, and nothing from you though he had applied to you a long time ago. I still think that in the river we do not require a naval officer, and have told him so but give him a passage to Johanna. Even with Mr. Young the Gunner we get less work out of the men than when we had no naval officer aboard. He however does about three times more than Mr. Gedye did.

Mr. Thornton has joined us again after having been to Kilimanjaro with the Baron von Decken.¹²⁹ He has a boat of his own, and goes to examine some rocks at Gorongozo having inscriptions on them. He will go with us on the Lake and geologize there. Mr. Cooley¹³⁰ is about as far out in his strictures of Rebman¹³¹ as he was about the Zambesi above Victoria Falls. Thornton thinks that Rebman was correct.

The missionaries have retired down to Chibisa's, but will soon move up again, as the lowlands will never do for them. No sanatory* regulations were made at their first residence and deposits from 200 people made the place a very "pest hole." The bishop + Burrup were ill before they started and braved the wet and damp of the Shire marshes with the sad result you already know. We could not in consequence of our Engineers culpable negligence get away to the Highlands. The Portuguese acting on our suggestions send their troops at once up to Tette and save nearly all while formerly by keeping them at Quillimane and Senna they lost nearly the whole.

We have to pay and part with Waldman, a German carpenter who is the laziest mortal I ever met with--And the pay of the present Johanna crew is due. Our 7 inch hawser and one of 5 inches came out half rotten from being stowed under the provisions. The 7 inch parted when towing the brig in and we took one from the brig which will be in the accounts of the Gorgon, as also some biscuit. The brasses, Kingstons, +c sent have never

come, but may with the ale be at the Cape. I regret the delay to which we have been compelled. It has been sore against the grain + utterly beyond my controul.* Many + hearty thanks for all your kind and prompt attention to our wants.

Yours Affectionately
D. Livingstone

Letter 22

HM Exploring Ship Pioneer
15 August 1862
[10 Nov JW]

My Dear Captain Washington

By H.M.S. Ariel, Captain Oldfield I sent a box addressed to you containing the drawings made by Baines at Tette. They were intended to shew the scenery of the country and if you see no objections I should like them kept in case of my publishing at some future time. They may be handed over to Mr. Murray¹³² the publisher--one shewing the vegetation of the Luabo or rather the Pandanus tree there might be given to Sir William Hooker¹³³ for his museum. I have retained none, but I hear that B. has smuggled some away to the Cape.¹³⁴ You will do what you think best with them.

I sent also the injured Magnetical Instruments to General Sabine¹³⁵--about the other boxes I advised you per Ariel.

As the Ale you kindly send never comes to hand it will be advisable to send the invoices of it + of anything else to my agent Frederick J. Rutherford, Esq,¹³⁶ Cape Town, and he will see that they are not allowed to go astray at the Cape as usual. The brasses +c +c I believe are still at the Cape. The old ones are patched up by Mr. Rae. If I had ever contemplated having anything to do with steamers I should certainly have studied steam in a systematic way. Hardisty I can see now behaved in a most shameful way with the engines--nuts tied up with bits of string instead of being mended, and the Journals all so neglected that, though while in the river and at rest we do not make an inch of water in weeks, the engine shakes her so at sea that four pumps could not keep her dry. Under sail in a rough sea we scarcely make an inch of water in 24 hours. Rae says that they (Engines) require a complete overhauling. Before Hardisty left I told him quietly how I gradually came to the conviction that he had been culpably negligent + especially by seeing the state of the packing + air pump. He replied that Mr. Rae had put me up to that +c+c. I did not take the evidence from the stokers as I felt it would be acting too much like himself--always on a level with them--but you will see Rowe and may enquire if necessary where the brasses were broken, and what prevented Mr Hardisty mending the wheel. The idea that I prevented him doing his duty is as bold a stroke of falsehood as I have encountered.

We left Kongone on the 6th and after nine days find ourselves only in Lat. $18^{\circ} 16'$ S. and Longitude $41^{\circ} 10'$ East. I question if the monsoons are to be depended upon here. We have had North and North East winds + calms, instead of South East winds. Yesterday we had our first fine south wind + ran before it 60 miles and at noon found ourselves 12 miles South West of where we started. We had a current of at least 72 miles in 24 hours. The colour of the current water is deep Indigo. The wind having died away we got up steam and ran 8 hours to the East getting back into the common blue of the ocean. The high lands of Madagascar must influence the winds, and the current does not seem to be very broad. It is probably between 39° and $40^{\circ} 40'$ or 41° E. We had some as we steamed out from the coast and then none in $37^{\circ} + 38^{\circ}$ E. We met a ship last year about 40° E. having a current with her southwards of $40'$ a day. I think some idea of the current might be gained by its colour which all remarked + it was not influenced by the sky--which has been cloudless. We could not steam over to the East as we can carry but little of our bulky fuel + must keep some as a stand by.

On 23d we reached Mohilla touching there first in preference to Johanna as fresh food is cheaper--then came over to Johanna, paid the Johanna men for 13-1/2 months. This required more than £100 the Admiral sent me. They recieved £1 - 8 per month and the head man £2. over the regular pay for the whole time. The expenses at Mohilla + here I shall put in next years account.

Tomorrow 1st September we start for Rovuma intending to go up in boats while the Pioneer lies and is caulked all over in the Bay. I saw that we should have some trouble in towing Lady Nyassa in a low river. We were bound in honour to take the Johanna men back, the Ariel being bound to the Cape and if you have looked at my accounts of the doings of the Portuguese you will understand my anxiety to be away from them to an outlet of our own, so we have concluded to spend the months between this and the December flood of the Zambesi in boat exploration of Rovuma.

I wish you would look at my opinion of Viscount de Sa da Bandiera's map as given to Mr. Layard¹³⁷ for Earl Russell. We have very good health since we left the river--took seventeen days to Mohilla. I shall write from this in Decr. next.

I am +c
David Livingstone

Letter 23

Johanna, 2 September 1862
[10 Nov 62 JW]

Dear Captain Washington

We came over to Pomony in order to get some provisions here

before starting for Rovuma. The fire bars were burned in the way across, and we could scarcely get along on the second half of the way without stopping every now and then, to get up steam. Mr. Rae says the fault lies in the coals being very bad. When turning round to come into the narrow entrance of this bay she went so slowly that we came too near the right hand point of the reef, and we distinctly heard her scrape a small portion. There was no concussion but it is probable that some copper may have ripped off as she made 4 inches more water than usual in 12 hours. We shall beach her at Rovuma and put on any plates that may be off. I write at once that you may know exactly how matters are. We ought not to have come here at all at this season but been content with what we got at the town.

David Livingstone

P.S. Though believing it my duty to give you the worst that can fairly be said of anything that happens to us I must add that we had a heavy sea running all night and we leaked much more when steaming than we do now. We are loose all over and to get pitch to caulk from Mr. Sunley was the chief reason for our coming round.

Mr. Young begs you to give the whole of his pay to his wife instead of £160 as formerly asked and any store keeping allowance that you may allow him too.

D. L.

Private

Possibly the best way about the money may be to wait till the Lady Nyassa is on the Lake. She costs about double what I expected but will be worth all her cost. If the Government paid the half after seeing what we can do with her in stopping the slaving on Nyassa I should be thankful, but Mr. Young knows my resources better than I do. You will do what you consider most advisable in the case and I am sure all will come right.

David Livingstone

Letter 24

Johanna 4th Septr. 1862
[5 Jany JW]

Dear Admiral Washington

I wrote a note today advising you that it had been necessary to draw £50 from Captain Gardner¹³⁸ of H.M.S. Orestes but I ought to have said £100 for I found that I had to pay the late Johanna crew of six men £115 - 8 for 15 months service. Then having engaged 10 new hands at the same rate, namely 28 shillings per month and £2 or £3 more per annum to the head man of the party. I had to give 2 months advance or £28. Then I had to buy paint, oil, + Turpentine - Pitch to caulk the vessel, fresh meat +

vegetables about £23 + advances to the men and had only £100 from the Admiral to do all this with. The full particulars will be sent in next years account. I only wish to advise you of this £100 and as this is to be sent by way of Mayotta, the other by Mauritius I may repeat that we have come here on our way to Rovuma to spend the months between this and the flood of December in boat exploration of that river. We were obliged to come with our Johanna men and to get others. Three whites are sent to the flag ship--one Charles Neale to be invalided home--all good men but frequently sick.

We shall leave Rovuma about the beginning of Decr. for this + Zambesi and I hope to report success to you. I need say nothing to you about our anxiety to get an outlet of our own to Lake Nyassa.

John Pennell Leadg Str. desires to remit (£10) - Ten Pounds to Mr. H. Fieldsend, No 7, Spa Terrace, Barnsley, Yorkshire--the money to be drawn at the Excise Office there as there is no bank. I hope it may be convenient to oblige him as he is a very well behaved man.

We are at present all in very good health. The Orestes tows us over to Rovuma that being in his way. Our Despatches go to Mauritius by him. This may come sooner to hand. Lady Nyassa is launched + in charge of Macleod + Reid at Shupanga.

I am Dear Sir
Most Truly Yours
David Livingstone

Could our letters not come overland to care of the Governor of Mauritius to be forwarded to Johanna.

We exchange David Gwilliam Qr. Mr. for another. His advances of pay amount to £5, and account is sent to the Flag ship.

Letter 25

Rovuma 15th Oct 1862
[10 Jany 63 JW]

Dear Admiral

We beached the Pioneer about a mile inside this river and found that the damage done by the coral at Pomony, which I reported in my last was very slight = five points had ripped about 1-1/2 inches square each. In one there was according to the carpenter a dent of 1/4 inch in the wood. In the others the felt was rubbed to one side. 1-1/2 Sheets of copper covered the whole--no leakage whatever had occurred there, though believing it might have been more than from the shaking of the engines I thought it right to report it to you at once. She has been caulked all over which has done a world of good, and does not leak an inch in a week.

While we were away I ordered Mr. Young in writing not to leave the anchorage. A heavy swell came in + he removed to the mouth of the river close to the right bank point. By dragging or otherwise she was allowed to get on a sand bank there, and a heavy swell gave her according to Rae a terrible bumping. The only white sailor with him was sick + he says he could not get out an anchor to haul her off with the new Johanna crew. I found about 20 feet of the edge of one streak of copper bent down + put it right. If she had not been capitally put together damage would have been done. Young works hard but has an awfully bad temper and has not the knack of managing the men either black or white except in a hectoring bullying manner. I have just to pass by this disobedience of orders.

We exchanged two men Goldsmith + Whitehead with the Orestes--Invalided Charles Neale--all three very well behaved men but frequently sick. We parted with David Gwilliam with regret, but Young + he could not get on together. Gwilliam was the cleverer man and knew it. He had £5 of advance but all advances slops + c are sent to the Flag ship.

Instead of these four we received two from the Orestes--Collier + Newell¹³⁹ who have good characters and I hope they may get on with Mr. Young = We were towed over her* by the Orestes, Captain Gardner and will sail for Johanna on 17th. For an account of our Rovuma trip see the larger sheet.

David Livingstone

Admiral Washington

Johanna 21st Octr. A dhow going off to Mayotta has been bribed to wait til I have finished my despatch that will give you what I intended above.

D. L.

Letter 26

Johanna 1 Novr. 1862
[not recorded]

Dear Admiral

We have remained a few days longer here than was needful on account of the weather being unsettled and a blow was expected. We take six trained oxen from Mr. Sunley who very kindly parts with them at a low price though it would be his interest to keep them to get in his sugar crop-- + intend to sail 2 days hence. We lost a crew of Johanna men--they ran away they said because Mr. Young thrashed them in my absence up Rovuma. I engaged eleven more who seem a more likely lot than the others.

I have to beg your attention to an affair of King our leading stoker.

His wife is reported to him to be living with another man. He wished to cut off his allowance to her at once but I advised him to be cautious as it might turn out to be a false report. He has asked Mrs. Young to see if she (Mrs. King) is living openly with another man, and if so report to you so that the pay she draws may be stopped.¹⁴⁰ Any expense for his child he will freely give. I hope it may turn out not so bad as he has been led to believe.

Meller is with us again, but his spleen is not reduced as we hoped. He is a capital fellow.

Will you send the invoice or bill of Lading of any thing for us to Frederick J. Rutherford Esq. of Cape Town. He will look after it con amore. All the beer is drunk by some scamp at Cape.

I am deeply grieved to hear of the death of our friend Dr. MacWilliam.

Our condensing apparatus has decidedly improved our health + when we can isolate its fore + aft compartments from the coal dust of the engine room which putrifies I anticipate still better results.

With kindest compts
I am etc
David Livingstone

Private

[Without date JW]

In reference to an Engineer for the Pioneer I think it will be advisable to secure John Campbell of whom I wrote in a former letter as employed by Tod + Macgregor of Glasgow. Either he will do or some one else in whom you have confidence. Rae has some sort of engagement with Mr. James Young for £400 a year and I suspect would like to get Miss Young in addition, so we cannot count on him longer than putting up the steamer say January 1864. Indeed he shewed an inclination to go off on a pretence of dysentery at Rovuma though Dr. Kirk could see no symptoms warranting such a step. A good engineer is indispensable. The brasses of the Paddle Wheels are worn to nothing simply because Hardisty never took any precaution to keep out sand and the new ones have not come yet. An Engineer volunteered from the Orestes but having written to you about Campbell I did not take him. Rae is a very good Engineer but seems to feel himself above his present situation. If we can believe him he has half a promise of Miss Young--this of course would unsettle him.¹⁴¹

David Livingstone

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[In neither of his letters to Washington of 15 October and 1 November does Livingstone have much to say about his second trip up the Ruvuma, where he was occupied between 7 September and 17 October. Leaving the "Pioneer" in charge of E. D. Young, Livingstone started upriver on 9 September. In his boat were his brother, Collyer, and Newell, while Kirk was accompanied by Rae and Pearce.¹⁴² Each group of course was accompanied by Africans. Along with them came Captain Gardner of the "Orestes," who was planning to return to his ship in two days. A number of his crew also made the trip upriver. After Gardner returned, accompanied by Rae who suddenly became ill, the party continued to proceed upriver. When a party of Makunde refused to let them pass on the 19th, they were forced to return fire, with the result that Kirk and Pearce each killed one of the attackers. Seven days later the rocks in the river became formidable, and after scouting a short distance upstream, the men began their return on the 27th of September. They turned after having gone upstream 156 miles. The return trip was less eventful than the outward journey; the "Pioneer" was reached on 9 October, and, on the 17th, anchor was weighed for the Comoro Islands. Two days later they arrived at Mohilla Island, and on the following day they went around to Johanna.¹⁴³]

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Letter 27

River Zambesi 15th Decr 1862
[R: 22 July JW]

Dear Admiral Washington

We came from Johanna to the Latitude of the Kongone in five days during two which without steam and a light head wind we were carried 60 miles a day. Our coals were expended when we made the land. We could have gone into Namiara or Nyamiara a double mouthed port about 30 miles from Luabo but were afraid to run a risk in a spot we did not know except by Portuguese reports with the wind blowing freshly on shore, so we bore away with sails to Quillimane River--cut wood there, and came round to Kongone. We find the Zambesi very low but the water is rising, and we shall be towing the Lady Nyassa up in about a week. I shall feel immensely relieved when fairly at that work. The oxen + mules are in good condition and promise fairly to facilitate our labours.

Thanks for Captain Maury's work. It is exceedingly interesting. Had we possessed it sooner we should have looked abroad with more intelligent interest--the black Indigo colour of the sea tells when we are in the current--we noticed this both in going and coming. In the hollow south of Mosambique + west of 38° E there seems to be no current except near the shore, and there it is towards the North. We have been twice deceived by

being too clever--making allowance for a current to the South and finding we made the land just where we steered for North of our port.

My chief object in writing at present is to beg you to transmit (£10) Ten Pounds from Quartermaster Collyer to Mrs Collyer 13 Bilbury St, Plymouth to be payable at Devonport Dockyard. This sum is additional to what she has been regularly drawing.

Also to Mrs. Magrath Ten Pounds (£10) from Qr. Master Magrath--this too is additional. Her address is Mrs. Magrath, Dawlish, Devonshire.

And to Sarah Jane Saunders from our carpenter¹⁴⁴ to be drawn as additional to what she now draws at Portsmouth Dockyard, Five Pounds (£5). Her address is Sarah Jane Saunders, 16 Plymouth St. Southsea.

Also £5 to Mrs. Pearce, 46 Albion St. Brighton. She is mother of the man who sends it and does not draw anything regularly. We received him from the Ariel. All are well behaved men.

We hear that Thornton is up at Senna waiting I suppose for some one to take him to Gorongoza--mountains with inscriptions west of that village. We did not take him with us to the Rovuma because we left with the intention of going down to the sea for provisions only and to send home our Johanna crew. We have eleven new Johanna men at Kroomen's wages--they promise to be very useful. They scarcely ever have fever and don't fraternize with the natives.

I see Pocket Aneroid's mentioned in the Journal of the Society of Arts. We were unfortunate enough to break 2 common barometers--one by a hawser bight dropping down the skylight and other by two natives fighting and tumbling down into the saloon. Will you favour us with a couple of pocket Aneroids. They are by Messrs Frankham + Wilson of Wilson St. Grays Inn Road and are mentioned in the Journal for May 16th 1862. They are said to be improvements but you will be able to judge whether there is anything in this. The mountain Barometer came out smashed + so was one of the boiling point instruments. Mr. May brought no fowling pieces--my private one is much too heavy. Indeed it is an elephant gun as well. I bought another fowling piece lighter for £10. (private) and it does not carry well. Both those we brought from Govt. were very good but one is quite used up.

We shall not come down till January of 1864*. Our fresh meats and groceries will then be quite done. Please think of this at your convenience.

The Makololo mission is almost to be renewed. Mr Moffat Senior¹⁴⁵ who established one with Mosilikatze¹⁴⁶ will probably help and

so will his son.¹⁴⁷ Poor Helmore + his party it turns out used no medicine except a little Dover's powder. !

Two carpenters--Two masons--one smith and a headman--an Englishman (the rest being Scotch) set out from London to form a settlement near us, working at their trades the wages going to a common fund: they bought two waggons and were proposing to go overland when a magistrate who testifies to their good conduct at Aliwal North, Cape Colony, laid the case before the Governor.¹⁴⁸ His excellency consulted me about sending them by sea. They seem to be the men who will suit our plans much better than those who have been employed by the mission of the Universities.

David Livingstone

Shupanga 18th Decr.

One of the missionaries informs me that the slaving is going on from Shire to Tette at the rate of 100 per week. I feel inclined to hang a few of the blackguards.

Letter 28

River Shire 23 February 1863
[R: 22 July JW]

Dear Admiral

We are near the upper end of the Elephant marsh or about 40 miles from the cataracts and unfortunately obliged to wait for a rise in the river. The Lake has probably been affected by the drought in the same way that the Rovuma was and as yet while filling does not give off the usual quantity of water for the total rise of the Shire has been one foot eleven inches. We came up quickly till we passed the Ruu towing the Lady Nyassa alongside.¹⁴⁹ We had then great difficulty at some sudden bends above that. Here we have but four feet of water yet and find waiting a severe exercise of patience.

I cannot describe to you the change which slave hunting and famine has effected in the valley of the lower Shire. While last year we could have purchased any amount of provisions at the cheapest rate we cannot procure a morsel even for our native labourers. Not a village is seen but here + there a few starving wretches linger on the banks trying to keep soul and body together by fishing and collecting the seeds of certain grasses. The Tette people began it all by following Dr. Kirk's spoor.¹⁵⁰ Then a half caste called Marianno¹⁵¹--a guest of the Governor of Quillimane after undergoing imprisonment for rebellion and about forty murders "ran away." The Governor ran after him but of course could not catch him. Then a private Portuguese ravaged the countryside West of the Shire as Marianno had done that adjacent to Mount Clarendon--another is now at it a little

farther to the North and anyone may turn slavehunter--nothing will be said or done till the culprit is rich enough to bear a squeeze--After which process he is allowed to begin afresh. We daily see the effects of the desolation which slavehunting and a drought produce in dead bodies floating down the stream--and we cannot see one tenth of those that perish for the alligators are prodigiously numerous and hundreds on hundreds lie unburied. The state of the disorganization in which the country is thrown may be imagined by the fact that about a dozen blacks under two Makololo who remained after being sent off to their own country with medicine for Sekeletu have been lording it over the whole country. They captured about 300 slaves from parties of Portuguese proceeding to Tette and heathen like each selected for himself a harem. Others of them fled to the missionaries, and it is complained that these Makololo recaptives have demoralized the mission people. The blacks brought from the Cape by the bishop have become as bad if not worse than the natives. I only regret that I could not be present to turn the Makololo to good account against the Tette slave traders. Hardisty's neglect of duty did us an ill turn.

This slaving coming across our path makes me view the whole subject in a new light. I see clearly now why none of the beneficial effects of Lord Palmerston's¹⁵² policy have appeared on this side of the continent. We did not see slaving before because the French Free Emigration¹⁵³ was supplied by forays to the country North and North West of Quillimane. The lower Zambesi had been depopulated before we came, but this slavehunting in which one tribe is set on against another has been in operation for ages, and quite shuts out all good influences. In the West the sense of security produced by the cruisers* had led to the establishment of twenty missions--as many dialects have been reduced, thousands are educated and their influence is spreading inland. Lawful commerce is increased from £20,000 in ivory + gold dust to between £2,000,000 + £3,000,000 and according to Mr. Wilson who has written the best book¹⁵⁴ on the West Coast I have seen, more tonnage is employed in carrying palm oil etc. than ever was engaged in the slave trade. He is an American yet acknowledges that but for Englands policy Africa had as yet been inaccessible to Christian missions. But here the same expensive policy has been in operation for an equal length of time, and the paltry peddling in ivory + gold dust with occasional slaving yields only a revenue at Kilimane of six hundred Pounds per annum--Yes and the only mission introduced driven up into an unhealthy corner by slaving complications abetted by the Governor of Tette is likely to die out. So it would have been in the West had only a few convict Portuguese been admitted and the country kept as a slave "Preserve." My only hope now is in Lake Nyassa. If these ruffians follow us there it will not be wholesome for them. I cannot help feeling savage. Every morsel of food we eat must be brought at least 300 miles. With eight months provisions from Johanna we

could in ordinary times have remained up here twelve months, and now we must again go for provisions to Mosambique while the water is high. This is the most severe trial of patience I ever had in my life. We have had six fine oxen + 2 mules on board for 3 months and are all ready to begin transport and no doubt will be at it long ere this reaches you but down again I must go. Dr. Kirk will carry on the work if I take the Pioneer. I mention these very untoward matters to you knowing that you sympathize in all our difficulties. I may tell you too that the missionaries are very much cast down ostensibly because they are condemned by Dr. Pusey¹⁵⁵ and others for fighting, but also because their education and anticipations have unfitted them for the rough work of a missionary in a new country + that country infested by the slave trade. Poor dear Scudamore¹⁵⁶ died of Fever. The other losses might have been avoided by ordinary precautions, but this death is due entirely to the unhealthy locality. All now acknowledge that the highlands are the best for them but they cannot move back, most of the people are gone or the land is occupied by the Ajawa.

We had a blacksmith--William Macleod who is obliged to retire from fever having affected his kidneys. I requested the Admiral to pay him his wages, for fourteen months at £10 per month. I regret his loss as he is very well behaved and a very good work man.

I had to give Senhor Manoel de Lima Vianna a bill for Thirty Pounds for provisions and one bale of calico. It is "No. Four - Book 812 - and dated "Shupanga" fifth of January 1863--for current expenses". Be kind enough to notify it to the proper authorities.

Your last note was very good but very short. It stated that of which I have abundant evidence and you will excuse me if I trespass still farther on your kind services. The last preserved meats from "John Macall + Co. Houndsditch" are remarkable for entire absence of flavour. Those which we brought out with us were capital. I believe they were from Gillon¹⁵⁷ of Edinburgh a very large dealer. I regret to see my companions declining to eat the present though we have nought else but salt meat. I eat them myself by way of shewing a good example but really the taste is anything but pleasant. I am not grumbling but I know you will set the matter to rights if this reaches you in time. By the way our intercourse with France has surely brought their Preserved meats into vogue. If so they are usually very good.

We have had one bad case of fever here but the man¹⁵⁸ is better though he was deeply jaundiced. Thornton is geologizing up at the cataracts, Drs. Kirk Meller + C Livingstone are here with me, and keep themselves as well employed as circumstances permit. Rae is getting the engines of the Nyassa ready and I can see is very nervous at our detention.

She draws as nearly as possible 3 ft 10 in. though she has only three or four tons in besides her own gear. She will do well for the Lake. Her draught prevents our putting the engines together and sending her forward--she touches where the Pioneer does. The marsh has occupied us over a fortnight. A hippopotamus + waterbuck by C. L. and geese and ducks by Dr. K. have helped our table, and I hope this will reach you + your family in the enjoyment of health and happiness.

I am etc
David Livingstone

P.S.

Should any of your acquaintances come out with a command to this coast would it be too much to ask him to bring us ten or a dozen good Krumen. I am very anxious to have as few white men as possible. The health of the men of war's men is a source of perpetual anxiety. The Zambesians make good sailors but having wives and gardens never stay more than a month or two. The Johanna men are great cowards + by the time we have got them into working order want to go home.

24th. We warped the Pioneer through the shoal place and a little above this two branches are given off so we think that beyond them there will be no difficulty. I write now by some canoes which brought up stores for the mission from Kilimane. Oh that Pioneer had been of a foot less draught, but she is a famous sea boat, if I may give an opinion. Since she was caulked and had the brasses turned upside down there is no shake and not a drop of leakage. We have to pump in water to clean out the bilges= We are now warping the Nyassa through.

After the Nyassa is on the Lake what think you of trying the Webbe or Juba 15' south of the Line? Would that be advisable--the Baron von Decken it is said has sent for a steamer to try all the rivers. I am perhaps looking too far a head. I like Maury's book very much but in some parts he does not seem quite clear. In the meantime Farewell.

DL

NB I have sent for £150 to the Cape in cash having spent all my private money in advance. I shall send you the particulars.

Letter 29

29th April 1863 at Murchison's
Cataracts

[Salutation omitted]

[10 October 1863 HOS]

I hereby certify that Dr. Kirk, Mr. Charles Livingstone, Dr. Meller, Mr. Edd. Young and Mr. George Rae + John Reid are alive and performing their duties as members of this Expedition.¹⁵⁹

David Livingstone.

[Admiralty 9 Octr 1863

A copy of the above has been sent to the Accountt General

W. V. Read for Hydrogr]¹⁶⁰

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[This Life Certificate of 29 April is the final letter from Livingstone to Washington in MSS 120. While it seems unlikely that Livingstone would have mailed it without an accompanying letter, I have been unable to locate such an item. As it would have arrived two weeks after Washington's death, it could easily have gone astray.

However, Livingstone did write at least one further letter to Washington. This was begun on 4 December 1863, and completed on the 22nd of that month. In this letter,¹⁶¹ Livingstone mentions receiving the Government's order recalling the expedition on 2 July, at which time his proposed road around Murchison's Cataracts was well under way. As the river was too low to allow his two ships to make the trip downstream, Livingstone decided to make another trip north to Lake Nyasa, this time to have a closer look at the slave trade west of the lake and to see if a large river entered the lake from that quarter. After describing the results of this trip to Washington, Livingstone mentions his dissatisfaction with the intentions of the new Bishop of the UMCA, George Tozer, to withdraw the mission from the Mang'anja country. He goes on to advance still more evidence of Hardesty's neglect with the engines of the "Pioneer," provides Washington with a further record of his financial dealings, and officially announces the death of Abraham Pearce. In general, the contents of this letter indicate that Livingstone wrote nothing to Washington between mid-June and early December. Within seven weeks of completing this letter, Livingstone received word of Washington's death, and all further correspondence was addressed to his successor.^{162]}

The End of the Zambezi Expedition.

After he and Ward returned from their journey into the area west of Lake Nyasa, on 1 November 1863, Livingstone still had to wait for the river to rise. It was not until late January 1864 that the remnants of his expedition began the trip to the sea. On 14 February the "Pioneer" and the "Lady Nyassa," under tow by HMS "Orestes" and HMS "Ariel,"¹⁶³ respectively, left the Zambezi delta bound for Mozambique. Here "Ariel" and "Lady Nyassa" arrived on 24 February; the "Orestes" and the "Pioneer" did not reach port until 4 March. The vessels remained here for almost a month, until on 2 April the "Pioneer" began its voyage to the Cape (where it arrived on 15 April), being towed by HMS "Valourous."¹⁶⁴ Two weeks after the "Pioneer" left, Livingstone took the "Lady Nyassa" out of Mozambique, bound for Zanzibar and Bombay. While up on the Shire River, Livingstone had decided to sell his ship in Bombay, to keep it from falling into the hands of slave traders in Zanzibar. The performance of the "Lady Nyassa" during the rough voyage from the Zambezi to Mozambique convinced Livingstone of its seaworthiness and strengthened his resolve to take it to Bombay. He arrived in Zanzibar on 24 April, and departed six days later without Rae, the engineer whose skills had served Livingstone very well indeed. Livingstone was accompanied by a stoker (John Pennell), a sailor (Charles Collyer), a carpenter (John Reid), and a crew of approximately ten Africans. After an uncertain voyage north along the coast of Africa and across the Arabian Sea, they reached Bombay on 13 June, just ahead of the monsoon. Livingstone left Bombay on 24 June with the "Lady Nyassa" still unsold and arrived at Charing Cross on 23 July, almost six and a half years after leaving Birkenhead.

As far as he was concerned, the expedition was almost a complete failure. Few, if any, of his visions of 1857 had come to reality--there was to be no colony, no commercial establishment, no mission, no settlement of "Scotch" artisans, and no end to this branch of the slave trade in the foreseeable future. Nevertheless, he was aware that some things were accomplished. For example, he and his men had mapped the lower Zambezi, the entire Shire, portions of Lake Shirwa, much of Lake Nyasa, and the navigable section of the Ruvuma. And it was as a result of his work that the Admiralty had been able to map the Zambezi delta and the mouth of the Ruvuma. Also, the reports he and his men submitted concerning the peoples they visited, the flora, fauna, and avifauna of the region, and the mineral and agricultural potential of eastern Central Africa constituted significant contributions to the sum of human knowledge. Probably the area in which Livingstone felt that most had been accomplished was in medicine, for he and Dr. Kirk had done a great deal of studying of tropical diseases among themselves and the rest of the men. Livingstone first noticed the difference between the fever of the West Coast and the fever of the East Coast, and

together they advanced the idea that quinine was not effective as a preventative of fever, but was very vital in effecting the cure. They also first recorded and studied cases of blackwater fever in Central Africa, and, indeed, observed any number of minor ailments which were previously unknown. Livingstone on several occasions noted that mosquitoes abounded where malaria was present, and his brother noted that the bite of the female of the species was much more painful than that of the male, but they did not put it all together to conclude that malaria is spread by the female *Anopheles* mosquito.

More negatively, Livingstone could only note with irony that his expedition caused the Portuguese to strengthen their claims to much of the region and prompted local officials, and those in Lisbon as well, to initiate a sweeping program of "housekeeping" for the colony, much of which, however, was done only on paper. And Livingstone reflected bitterly upon how slavers from the Portuguese settlements followed his path up the Shire River and elsewhere, along paths which had previously been closed to their activity. Certainly the Zambezi Expedition had a much greater effect upon this region, but this effect was in ways which were not readily discernible until long after Livingstone's death in 1873.

Although his expedition came to an end in 1864, Livingstone did not give up the work he began while commanding it. When he returned to Africa in 1866, he began by making a third attempt to ascend the Ruvuma River, and as he was no longer accompanied by steamers and their paraphernalia, he succeeded in seeing with his own eyes that which he had suspected to be true since late 1862: the Ruvuma did not flow out of Lake Nyasa. It had been his purpose after doing this to round the north end of the lake, to determine its extent and complete its mapping, but circumstances forced him to go south instead, and return to the country he had visited late in 1863. He never did see the north end of Lake Nyasa, and sometime around the turn of 1866 into 1867 he left this area forever as he moved northwards in his attempt to answer questions which ultimately stemmed from his discovery, with William Cotton Oswell and Mungo Murray, of Lake Ngami in 1849. Like many of the superhuman tasks Livingstone set for himself, he left final answers to these questions to other men, who were to follow where he had led.

APPENDIX
EUROPEANS ON THE ZAMBEZI EXPEDITION¹

10 April 1862²

<u>Name</u>	<u>Arrival</u>	<u>Departure</u>
Charles Hardesty Engineer	[Pioneer, 5 Feb 61]	left on 25 July [62 Ariel]
James King Leading Stoker	[Gorgon, by 4 Apr 62]	[with Pioneer to Mozambique, 4 Mar 64]
Richard Wilson 1st class Stoker	[Pioneer, 5 Feb 61]	[with Pioneer to Mozambique, 4 Mar 64]
John Pennell 1st class Stoker	Lyra, [11] Mar 61	[discharged in London, 28 July 64] ³
Michael Nolan 1st class Stoker	[Gorgon, by 4 Apr 62]	left on 25 July [62 Ariel]
David Gwillim Quarter master	[Pioneer, 5 Feb 61]	left on 8 Sept [62 Orestes]
John Hutchins Quarter master	[Persian, 1 Aug 59]	left on 25 July [62 Ariel]
Thomas Magrath Quarter master	[Gorgon by 21 Feb 62]	left on 20 May 63 ⁴
Charles Neale Able Seaman	[Pioneer, 5 Feb 61]	left on 25 July ⁵
Joseph Goldsmith AB acting as cook	[Gorgon, by 21 Feb 62]	[left on 8 Sept 62 Orestes]
George Wheatcroft AB [or Qr Mr]	[Gorgon, by 21 Feb 62]	left on 25 July [62 Ariel]
[Daniel] Whitehead Ords	[Gorgon, by 21 Feb 62]	left on [8 Sept] 62 Orestes
Edward Young Gunner	[Gorgon, by] 21 Feb 62	[with Pioneer to Mozambique, 4 Mar 64]
Thomas Ward Steward	[Pioneer, 5 Feb 61]	[with Pioneer to Mozambique, 4 Mar 64]
William Macleod Smith	[Gorgon, 2 Feb 62]	left 1st April 63 ⁶

<u>Name</u>	<u>Arrival</u>	<u>Departure</u>
Augustus Waldman ⁷ Cooper	[Gorgon, by 21 Feb 62]	left on 25 July [62 Ariel]
John Reid Carpenter	[Hetty Ellen, 2 Feb 62] ⁸	[with Lady Nyassa to Bombay, 13 June 64]
William Rowe Leading Stoker	[Lynx, 5 Oct 58]	left on 25 July [62 Ariel]
Abraham Pearce Quarter Master	Ariel, 25 July 62	left on 20 May 63
William Saunders Carpenter's Mate	[Ariel,] 25 July [62]	left on 20 May 63
Charles Collyer Quarter Master	[Orestes,] 8 Sept 62	[with Lady Nyassa to Bombay, 13 June 64]
[Charles?] Newell AB	[Orestes, 8 Sept 62]	left on 20 May 63
Daniel John May Master	Pioneer, 5 Feb 61	discharged, 20 Apr 61, Johanna
William Henry Gedye Mate	Pioneer, 5 Feb 61	left on 4 Apr 62 Gorgon
Charles J. Meller Surgeon/Naturalist	Pioneer, 5 Feb 61	discharged, 17 July 63, Chibisa's
John Neil AB	Pioneer, 5 Feb 61	discharged by 21 Feb 62, to Gorgon
Robert T. Fayars Shipwright	Pioneer, 5 Feb 61	died on the lower Shire, 17 Dec 61
John Walker Quarter Master	Lynx, 3 Oct 58 ⁹	left on 1 Aug 59 Persian
David Livingstone HM Consul, Commanding	London, 1 Feb 58 Pearl, 14 May 58	left Zambezi, 14 Feb 64; England, 23 July 64
Norman Bedingfeld Commander	London, 1 Feb 58 Pearl, 14 May 58	left Shupanga, 28 Aug 58
John Kirk Surgeon/Naturalist	London, 1 Feb 58 Pearl, 14 May 58	left Chibisa's, 19 May 63; England, 9 Oct 63
Charles Livingstone Assistant	London, 1 Feb 58 Pearl, 14 May 58	left Chibisa's, 19 May 63; England, 9 Oct 63

<u>Name</u>	<u>Arrival</u>	<u>Departure</u>
Richard Thornton Geologist	London, 1 Feb 58 Pearl, 14 May 58	discharged at Tete, 25 Jun 59 rejoined at Shupanga, 3 Jun 62 died near Chibisa's, 21 April 63
Thomas Baines Artist/Storekeeper	London, 1 Feb 58 Pearl, 14 May 58	discharged at Tete, 30 July 59 left 12 Dec 59, Lynx
George Rae Engineer	London, 1 Feb 58 Pearl, 14 May 58 Hetty Ellen, 2 Feb 62	left from Mutu Canal, 27 March 60 left Lady Nyassa in Zanzibar, 30 April 64

Notes to Appendix

1. This table does not include those Europeans who merely visited the expedition, such as Lt. Mervyn B. Medlycott, Lt. Charles E. Burlton, the officers and men of HMS "Gorgon" and other vessels of the East Africa Squadron, the ladies and men of the UMCA, Portuguese citizens who aided the expedition, Mary Livingstone, nor James Stewart. Basically, it is a list of Europeans who were employed by the Government on the Zambezi.
2. This table is based on an entry in the journal Livingstone kept between November 1861 and July 1863. All information not in brackets is Livingstone's, and is presented here with the kind permission of Mr. William Cunningham, Warden, David Livingstone Memorial Museum, Blantyre, Scotland. As an examination of the table indicates, Livingstone added to it from time to time after 10 April. The information concerning the last thirteen men (i. e., Daniel John May and those following) does not appear in the original, thus brackets have been omitted for convenience. Similar information concerning the remaining eight men who sailed from Plymouth on the "Pioneer" on 9 September 1860 is not presented here as their contribution to the Zambezi Expedition is marginal and minimal at best.
3. Collyer and Reid, who also made the voyage to Bombay, were probably discharged in London as well. Livingstone's implication in the Narrative (p.482 and p.583) that he was accompanied by Reid, Pennell, and Wilson is incorrect.
4. The four seamen who left on this date were accompanied by Kirk, Charles Livingstone, and Richard Clark, who was Shoemaker/Tanner for the UMCA. En route from Chibisa's (actually, they left from the "Pioneer" on the river near Chibisa's on 19 May) to Quilimane, they suffered terribly from fever: Pearce died on 4 June, and Magrath and Clark both were very close to death. The survivors left Mozambique on 13 August in the "Orestes," bound for Zanzibar. Further details of their return to Britain is outlined in ZJJK, pp.528-30.
5. Livingstone is in error; Neale left on 8 September 1862 in the "Orestes."
6. Macleod left the expedition on 27 February 1863 while on the lower Shire; Livingstone paid him for fourteen months, up to the 2nd of April. Thus Macleod joined the expedition on 2 February 1862, and it seems likely that Waldman joined on the same day.
7. Waldman, Macleod, and Reid were civilians, although Macleod had done some work aboard HMS "Lyra." With the exception of Bedingfeld, the last seven men listed in the table were civilians, and it is likely that Gedye, Meller, and Hardesty were also.
8. In Livingstone's table, he has Reid arriving on 1 May 1861. This might

indicate the date when Reid stopped working for Tod & Macgregor (Rae might have secured back pay for Reid from Livingstone), or it might be an error. The letter from Livingstone to Washington dated 1 April 1862 (Letter 15, page 37) suggests that Reid either joined the expedition officially on that date or was making arrangements concerning his salary for the second quarter of 1862. Then again, as Reid's skills were not only required to help Rae assemble the "Lady Nyassa," but were also valuable to help fill the occupational void left by Fayers's death, his official connection with the expedition may date from early February, and I choose to assume that he was hired the same day as Macleod and Waldman.

9. Walker officially joined the expedition two days before Rowe, although they both came from the same ship.

NOTES

Introduction

1. Cf. R. Coupland, Kirk on the Zambezi: a Chapter of African History. Oxford: Clarendon Press, 1928, hereafter referred to as KotZ; Reginald Foskett (ed.), The Zambesi Journal and Letters of Dr. John Kirk, 1858-1863. 2 vols. Edinburgh and London: Oliver & Boyd, 1965, (hereafter referred to as ZJJK); and R. Foskett, (ed.), The Zambesi Doctors: David Livingstone's Letters to John Kirk, 1858-1872. Edinburgh: the University Press, 1964.
2. Cf. Edward C. Tabler (ed.), The Zambezi Papers of Richard Thornton. 2 vols. London: Chatto & Windus, 1963. Identifications of some Zambezi residents referred to in the following letters have been aided by this work. Hereafter referred to as ZPRT.
3. The only biography of Baines which I have seen is the very inadequate Thomas Baines of King's Lynn, by J. P. R. Wallis. (London: Jonathan Cape, Ltd., 1941.) Like Wallis's other works on the Zambezi Expedition and its members and associates, it is in drastic need of revision.
4. Bedingfeld had been disciplined for insubordination prior to this time and was only taken by Livingstone against the advice of Washington. He had been recommended to Livingstone very highly by Edmund Gabriel, HM Consul at St. Paul de Loanda, in Angola.
5. Murchison (1792-1871) was a geologist and longtime President of the Royal Geographical Society.
6. The dismissals of both Thornton and Baines have traditionally and erroneously been ascribed solely to some "malignant" character trait of Charles Livingstone's.
7. Lieutenant Henry Berkeley, 12 November 1857.
8. It is worth noting that the Scots on the expedition remained in Livingstone's good graces, while the English did not. Cf. ZPRT, vol. 1, xv, n. 1.
9. It was eventually named the "Lady Nyassa," was often referred to as the "Lady of the Lake," and was built at Livingstone's personal expense. Prior to this time Livingstone had requested that the Government build and provide him with a second vessel: this was done, the ship being the "Pioneer."
10. The exact figure is difficult to determine. George Seaver (David Livingstone: His Life and Letters. London: Lutterworth Press, 1957) mentions 114 left in Tete, of whom 36 died (p. 329), but goes on to say

(p.364): "Of the ninety survivors one-third declined to leave Tete. . . ."

11. George Martelli, Livingstone's River: a History of the Zambezi Expedition, 1858-64. London: Chatto & Windus, 1970, pp.136-37. Martelli's interpretation is incorrect and unjust: in fact it was the Makololo who suggested that Charles lead them home (Cf. J.P.R. Wallis, The Zambezi Expedition of David Livingstone, 1858-1863. 2 vols. London: Chatto & Windus, 1956, vol. 2, p.301), and all parties concerned were anxious to make the trip, until reflection made the Africans realize that their chief, Sekeletu (1834?-1864) would be very angry if they returned without David. They knew their chief: his treatment of the Helmore-Price mission (see below) upon his discovery that neither David nor Mary were with them was restrained compared with the way he probably would have treated his own men--most of whom, it should be remembered, were subject peoples and not true Makololo--had they dared to return without David.

12. Commander Edward Hardinge, 27 January 1859.

13. A third member, John Mackenzie, remained in Kuruman until his wife's pregnancy was successfully terminated with the birth of a daughter.

14. Sekeletu and his people were continually held at bay by Mzilikazi, chief of the Ndebele, who lived in what became Rhodesia. As Mzilikazi was on excellent terms with Robert Moffat, who was Mary Livingstone's father, Sekeletu felt that the presence of David and/or Mary among his people would insure them from attack by the Ndebele and allow them to move to healthier regions.

15. David Livingstone, Missionary Travels and Researches in South Africa, etc. London, John Murray, 1857.

16. See p. 11.

17. John Washington, "Geographical Notice of the Empire of Marocco." Journal of the Royal Geographical Society, vol. 1, (1831), p.123.

18. Dawson, L.S. Memoirs of Hydrography, Part II, 1830-1885. Eastbourne: Henry W. Keay, the "Imperial Library," 1885, p.94. This intelligence report by Washington was obviously of great significance on the eve of the Crimean War.

19. Commodore William F. Burnett, 24 October 1861.

20. Dawson, Memoirs of Hydrography, p.96. Page 93 of this work also includes a photograph of Washington. Other sources consulted in compiling this sketch of Washington's life and accomplishments include: O'Byrne, William R., A Naval Biographical Dictionary. London: John Murray, 1849, pp. 1254-55; The London Times, 23 September 1863; Britain's Dictionary of National Biography, Oxford, 1917, vol. XX, pp.898-99 (this set was also referred to frequently when identifying persons mentioned in the letters);

Journal of the Royal Geographical Society, vol. 34, (1864), pp. cxii-cxv; Vice Admiral Sir Archibald Day, The Admiralty Hydrographic Service, 1795-1919. London: Her Majesty's Stationary Office, 1967; and, of course, MSS 120 (see below).

21. Washington was promoted to Rear Admiral on 12 April 1862.

22. Livingstone wrote this on 10 February 1864 as a postscript of a letter written on 4 December 1863, the original of which is in the Royal Geographical Society.

23. David and Charles Livingstone, Narrative of an Expedition to the Zambesi and its Tributaries; and of the Discovery of the Lakes Shirwa and Nyassa, 1858-1864. London: John Murray, 1865, p.10. Hereafter referred to as Narrative.

24. They are published here with the kind permission of the Officer-in-Charge of the library, Commander R. C. Burton. I am also pleased to acknowledge the aid rendered by Miss J. Riley and Mr. F. Bailey, library staff members. I am also grateful to Mr. I. C. Cunningham, an Assistant Keeper of Manuscripts in the National Library of Scotland, for providing me with research materials which otherwise I would have been unable to consult, and giving odd bits of advice from time to time; and to Mr. H. C. Willis of Simon's Town, for information concerning the Admirals stationed at the Cape, and information concerning the movements of the "Pioneer" in early 1864.

25. Some basic information on these men is given in the Appendix.

26. From 10 August to 1 November 1863 Livingstone explored the upper Shire valley and the land to the west of Lake Nyasa in the company of the Steward of the "Pioneer." Although they walked over 660 miles together, Livingstone invariably refers to this man as "the Steward."

27. As far as Livingstone's opinions of his European companions is concerned, writers too often grasp at a sentence or paragraph written by Livingstone in an unguarded moment, and fail to observe his total relationship with the person concerned over the entire period of time which they spent together.

28. From February 1856 until his retirement in January 1863, Skead (1823-1891) was the Royal Navy's Surveyor at the Cape of Good Hope. He accompanied the expedition to the Zambezi delta in 1858, and returned to re-survey the bar and the adjacent waters in early 1861. He was always on the very best of terms with Livingstone, and of him Livingstone wrote to Sir Thomas Maclear: "With a man like Skead I could go on to the end of the world. . . ." (10 September 1858, original in the National Archives of Rhodesia). One of the twenty letters which Henry Stanley brought from

Tabora in 1872 to deliver for Livingstone was for Francis Skead.

29. Correct spelling of surnames appears in the Notes, with the exceptions of "Gwillim" and "Pennell," which names I cannot spell with certainty. My own spelling of geographical place-names tends to be arbitrary. Where Lake Nyasa is concerned, I have tended to prefer a single "s," but have retained Livingstone's double "s" in referring to the "Lady Nyassa." On page 6 I have noted that the lake is named "Malawi" today, a practice which I have repeated in some other cases. As the place names in Mozambique and the Comoro Islands are changing daily, I have retained the names used in Livingstone's day.

Letters

1. William Rowe was Leading Stoker of the HMS "Lynx" when he joined the expedition, on 5 October 1858. Despite frequent attacks of malaria, he served very admirably. For further information on Rowe and all the other seamen and civilians who joined the expedition in the field, see the Appendix.
2. The "MaRobert."
3. The pinnacle was given to the expedition in June 1858 by Commander William E. A. Gordon (21 February 1856) of the HMS "Hermes."
4. A mollusc which infects wooden ship bottoms; shipworm.
5. Two compounds which Livingstone used for fever treatment. Two others were Quinine and Calomel.
6. James Young (1811-1883) was a Scottish industrialist who was one of Livingstone's three trustees, and who supported Livingstone financially and otherwise after 1857. Had Livingstone's dream of a colony been realized, Young would have been in an excellent position to increase his already substantial fortune.
7. Livingstone's stress upon the word "conjecture" reminds one that just prior to his departure from Cape Town in June 1852 he had to pay money from his own pocket to a postal official to avoid being taken to court for libel.
8. Kolobeng was the site of one of Livingstone's missions to the Bechuana people. Its ruins lie roughly 30 miles west of Gabarone, in Botswana.
9. The Helmore-Price mission to Linyanti. See p. 6.
10. Probably of John Kendal & Sons, 5 Leadenhall St., London.
11. The "Pioneer" was accompanied by the HMS "Sidon," Captain Richard B. Crawford (11 June 59), who at this time was Senior Officer in the East Coast Squadron.

12. The "Lyra," Commander Radulphus Bryce Oldfield (12 November 1857), was late because it was aiding those shipwrecked in the "Enchantress" in the Comoros, and the HMS "Wasp," which was aground on the mainland in Tongo Bay, 15 miles south of Ruvuma Bay.
13. Daniel John May, Master, RN, brought the "Pioneer" to the Zambezi from England, leaving Plymouth on 9 September 1860.
14. Charles Frederick Mackenzie (1825-1862) was the first Bishop of the UMCA. Cf. Owen Chadwick, Mackenzie's Grave. London: Hodder & Stoughton, 1959.
15. Mackenzie wanted to proceed up the Zambezi/Shire immediately, but finally agreed to accompany Livingstone on the exploration of the Ruvuma.
16. This sentence is written in the margin and is inserted here arbitrarily.
17. James Ormiston McWilliam (1808-1862) was Medical Officer to the Niger Expedition of 1841. He wrote several articles on tropical diseases and the health of seamen.
18. George Washington Jones was at this time Acting Paymaster, having replaced Octavius N. Spong, who was drowned on the bar of the Zambezi delta in mid-1860.
19. Rae boarded HMS "Lyra" on 14 June 1860 while en route home and cruised around somewhat with it, until around mid-August he disembarked at Zanzibar to continue on his way. Cf. George Rae, "Last News from Dr. Livingstone," Chamber's Journal of Popular Literature, Science and Arts. No. 378, (30 March 1861), pp. 193-98.
20. Admiral Sir Frederick Grey (1808-1862) became Commander-in-Chief of the Cape station (Simon's Town) on 27 May 1857 and remained in that position until 7 July 1860. He is the man to whom Rae was to report. Rear Admiral Sir Henry Keppel (1809-1904) replaced Grey on 7 July 1860, and relinquished his command to Rear Admiral Sir Baldwin Wake Walker (1802-1876) on 27 April 1861. Walker held this post until sometime in 1864. Livingstone's subsequent references (in these letters) to "the Admiral" are to one of these three men, depending upon the date of Livingstone's letter.
21. Rae was shipwrecked off Ras Hafoon (just south of the tip of the "horn" of East Africa) on 4 September 1860. According to Thomas Baines, Rae was carrying "several specimens of gold," although Baines may have been reacting to hearsay instead of relying upon his memory. Cf. Baines's letter to J.A. Runciman, 13 March 1869 in JPR Wallis, The Northern Goldfield Diaries of Thomas Baines. London: Chatto & Windus, 1946, vol. 3, p.802. Rae was carrying some items of jewelry which he planned to deliver for Kirk and the Livingstones, but because his claim to the Government for reimbursement of his losses was so high, David later suspected that he might have speculated in gold dust in Quilimane.

22. Rae had five boxes of specimens, two of which contained birds collected by Charles Livingstone. One box went directly to England, but the other four were lost en route. They turned up in Portsmouth in 1883 (by which time the Livingstones had been dead ten years and Rae eighteen), where they had been overlooked since 1870. Because Kirk was Charles's superior officer, he is usually given official credit for the specimens which Charles collected (to which collection, however, Kirk and others did contribute). Cf. KotZ, p. 169.
23. Livingstone is referring here to Cooley (see note 130, p.86), Arrowsmith and Macqueen, (see note 115, p. 84), and perhaps some of the Portuguese as well, such as Sa da Bandiera (see note 81, p.81) and Candido Jose da Costa Cardoso (who claimed to have visited Lake Nyasa prior to Livingstone and maybe did so), all of whom disputed Livingstone's claims of discovery.
24. Henry Rowley was a deacon attached to the UMCA.
25. Commander Charles Stirling, (10 April 1860).
26. Sir Richard Burton (1821-1890), who, among other things, had recently become the first Briton to reach Lake Tanganyika.
27. Charles Livingstone was leading a wooding party which included Charles Hardesty and some Makololo, when a group of Afro-Arabs arrived, ostensibly to sell food. Livingstone showed an interest in buying, until the vendors became unruly and demanded payment for the wood which the party had gathered. Sensing the climate of the situation, Livingstone sent Hardesty to the ship to fetch their pistols, and the muskets of the Makololo. This show of force sent the Afro-Arabs scattering with such haste that they neglected to carry away the food they had brought to sell. When they returned, thoroughly pacified, Livingstone paid for the food, and no more was said about the wood.
28. In his letter of 6 December 1861 (see p.23), Livingstone says six were discharged, and in a letter to Frederick Fitch (see note 72, p.80) on 18 April 1861, Charles Livingstone says four were discharged. (Original in the National Archives of Rhodesia.) I am not certain of the exact figure, but it seems likely that the Quartermaster was Henry Brown and the Leading Stoker was John B. Bacon.
29. May expected that he would exercise command over Kirk, Charles Livingstone, and Rae. David would not hear of it, arguing that the chain of command arranged by the Foreign Office in January 1858 was not to be superseded by May's orders from the Admiralty in mid-1860 unless Livingstone himself received orders to that effect from either body. Although Kirk was willing to defer to May when on board, May wanted total superiority. When he felt May pushed the matter too far, Livingstone gently dismissed

him on 20 April 1861, in Johanna. May later became Skead's (see Introduction note 28, p.73) assistant on the Cape Survey.

30. James Jackson (11 April 1860).

31. Consumption of expedition food by Mission personnel was the source of no small irritation among expedition members, especially Charles Livingstone, in early 1861 and again in early 1862.

32. Perhaps a son of Robert Hanbury of Truman, Hanbury, Buxton & Co., 174 Brick Lane, Spitalfield, London.

33. Anne and Alice Mackenzie. Only Anne reached the Zambezi.

34. Grey (1812-1898) was Governor of the Cape Colony from 1853 until June 1859 when he was recalled. He was reinstated before the year was out and held his post until sometime in 1861.

35. Turner (1797-1869) was a merchant and cotton manufacturer who represented Manchester from 1857 to 1865.

36. Thomas Clegg, of Clare and Co., was a Manchester cotton merchant.

37. Lovell James Proctor (1833-1910) was an ordained clergyman attached to the UMCA. Cf. Norman Bennett and Marguerite Ylvisaker (eds.) The Central African Journal of Lovell J. Proctor, 1860-1864. Boston: Boston University African Studies Center, 1971.

38. Charles Hardesty was Engineer of the "Pioneer."

39. William Henry Gedye was Mate (Second-in-Command) of the "Pioneer."

40. John Penn (1805-1878), Engineer, who patented the use of lignum vitae for the lining of sea bearings on screw propellers (1854).

41. Named after Commander Hyde Parker, HMS "Pantaloön" (4 July 1849), who visited the area in the early 1850s, and judged this branch of the Zambezi delta (which was also known as the Catarina bar) as navigable for commercial purposes.

42. From 16 to 25 March 1860.

43. Charles James Meller was Medical Officer and Naturalist of the "Pioneer." He was invalided to Cape Town on 4 April 1862, but returned to rejoin the expedition on 23 October. Meller left the expedition and the area for good on 17 July 1863, when he left Livingstone at Chibisa's.

44. David Gwillam. Cf. following letters and Appendix.

45. John Pennel, Stoker 1st Class, accompanied Livingstone to Bombay on the "Lady Nyassa."

46. Richard Wilson and Thomas Ward (see note 50) were the only two men

serving on board the "Pioneer" when it sailed into Mozambique on 4 March 1864, who were members of the original crew.

47. John Neil visited Lake Nyasa late in 1861 with the Livingstones and Kirk, at which time his experience as a fisherman off the coast of Ireland (Eire) proved very valuable in helping the party cope with the sudden storms which arose on the lake.

48. Neale was a good worker who had to leave the expedition in October of 1862 due to recurring illness.

49. Fayers was the only crewman of the "Pioneer" who died while on the expedition. According to Dr. Gelfand, who refers to the man as "Ferber," ". . . this was probably the first recorded case of blackwater fever in Central Africa." Cf. Michael Gelfand, "Livingstone's Contribution to Malawi: Some Aspects of the Medical Factor," in Pachai, Bridglal (ed.), Livingstone: Man of Africa. Memorial Essays, 1873-1973. London: Longman Group Limited, 1973, p.184.

50. Ward, who accompanied Livingstone on his walk into the country west of Lake Nyasa late in 1863, is not to be confused with Thomas Ward, Ship's Cook, an original "Pioneer" crewman who probably left the ship in Cape Town in December 1860.

51. The use of "HMS" by Livingstone implies that the vessel was part of the Royal Navy; in fact, it was built by the Admiralty, but paid for and controlled by the Foreign Office.

52. Although Katura is often credited with leading this slaving party, it was his claim that the leader of the party, who escaped unseen, was Jose Anselmo de Santos Anna (Santana?), who had acted as guide to the expedition when they examined the Zambezi rapids in late 1858.

53. Major Tito Augusto d'Aravjo Sicard (d. 1864) was Commandant of Tete until appointed Governor of Ibo in March 1859. While at Tete, the expedition used a house provided by him as headquarters. Sicard later became Commandant of Mazaro and the Shire River.

54. The Mang'anja inhabited both banks of the middle and upper Shire valley, including the highlands, while the Yao lived to the east of Lakes Shirwa (Chilwa) and Nyasa. Encouraged by the Arabs to the north and the Portuguese to the south, each group conducted slaving excursions at the other's expense. Mackenzie was surprised to learn that many of the Mang'anja who had been freed wanted to sell into slavery many Yao who were subsequently freed.

55. The Rev. Henry de Wint Burrup arrived on 13 November; he was followed nine days later by the Mission's Surgeon, John Dickenson (1832-1863), and Richard Clark, who was the Shoemaker and Tanner.

56. The "Lady Nyassa," also called the "Lady of the Lake," which was being constructed in Glasgow by Tod & MacGregor under the watchful eyes of James Young and George Rae.
57. Named after Sir Thomas Maclear (1794-1879), Astronomer Royal at the Cape from 1853 to 1870, who reduced practically all of the astronomical observations Livingstone ever made.
58. Livingstone referred to these people as the Maziti or Mazitu.
59. Chibisa was a Mang'anja chief whose residence alternated between the north bank of the Zambezi between Sena and Tete and the west bank of the Shire near the Murchison Cataracts. The most cooperative of the Shire chiefs from Livingstone's point of view, he sought to use Livingstone for his own political purposes. Cf. Schoffeleers, J.M., "Livingstone and the Mang'anja Chiefs," in Pachai, Livingstone: Man of Africa, pp. 111-30. Chibisa was killed in March 1863 when doing battle with one of Belchoir's (see note 122, p.85) allies.
60. Charles Wastell Dixey & Sons, Opticians, 3 New Bond St., London.
61. Sir Culling Eardley (1805-1863) was a religious liberal who supported, among other things, the rights of the Roman Catholic minority in Lutheran Sweden, the rights of the Jewish people in Europe, and Protestant missionary efforts around the globe. At this time he was treasurer of the London Missionary Society.
62. It was good cotton. When cleaned, it weighed 371 lbs. and sold for £27-16-0, of which £22-10-0 was profit, which Turner retained for Livingstone. Cf. Turner's letter to Livingstone, 30 January 1863, in the National Archives of Rhodesia. On 26 January 1865 Livingstone wrote Turner requesting that the sum be forwarded, in the form of grey calico, to Bombay, where he would use it to pay the African crew of the "Lady Nyassa." Original in the possession of Messrs Charles J. Sawyer, Booksellers, 1 Graffon Street, London.
63. Clark (1788-1870) was noted for his efforts to conceal the nauseous taste of ingredients in his prescriptions. He wrote various articles on medicine and medical administration.
64. Sir John Liddell (1794-1868) was Director General of the Medical Department of the Royal Navy from 1854 to 1864.
65. Alexander Bryson (1802-1869) succeeded Liddell as Director General, and served in that capacity until his death. He wrote many articles on tropical diseases and afflictions of naval personnel.
66. Sebituane was chief of the Bafokeng, a Sotho group whom he led north from around the Vaal during the turbulent 1820s. He renamed his people "Makololo," settled them north of the Okavongo Swamp, and died on 7 July 1851, just after Livingstone arrived in his country.

67. The "Johanna" men were inhabitants of the Comoro Islands whom Livingstone hired during his visit there in April 1861. Cf. p. 15.
68. The Kroomen were twelve Kru people of Sierra Leone whom Livingstone hired to serve as crewmen aboard the "MaRobert" during the "Pearl's" visit there in late March 1858.
69. Slops included clothing, bedding, and certain table luxuries.
70. While Livingstone was exploring the lake, the missionaries had two further skirmishes with the Yao. On 14 August the missionaries clearly took the offensive and were supported in the field by Hutchins, Gwillim, and Hardesty. The second "battle" came on 16 October, when Rowe, Ward, and Meller made up the naval contingent.
71. On the evening of 16 June 1861 the ship "Bernicia" was wrecked in a storm on the northwest end of Robben Island in Table Bay. Her cargo included 20 cases, 2 casks, 33 bundles, 5 grindstones, and 3 bundles of bars which were bound for Livingstone. While much of this consisted of roadmaking materials and tools, it is probable that a few casks of beer were on board. Some of the items were salvaged and forwarded. On 26 September 1862 Washington was to write to Livingstone: "I regret too that your bitter beer [he preferred Bass's Pale Ale] has reached you so seldom, and even then that it had been tampered with. . . . About 10 dozen have been sent every three months since you left England." Cf. Washington's letter copy, MSS 120.
72. Fitch was a close friend of Charles Livingstone who handled his financial affairs while he was on the expedition. He was associated with Fitch & Son, Provision Merchants and Importers, 66 Bishopsgate, London, and delighted the members of the expedition with his regular gifts of hams and cheeses, etc.
73. The HMS "Forte" was the flagship of Rear Admiral Keppel: hereafter the flagship referred to is Rear Admiral Walker's HMS "Narcissus."
74. They were sold for £52 - 4 for Livingstone by Joao de Costa Soares, a merchant whose generosity to the members of the expedition and the UMCA cannot be overestimated. He often lodged them in a house at his own expense, and frequently gave them and their luggage free passage on his yacht, between Quilimane and Mozambique. It was due to an acrimonious dispute with Soares (and others) that J. Lyons McLeod (see note 121, p. 85) was forced to abandon his consulship in haste.
75. Lt. Charles E. Burlton was serving on HMS "Brisk" (Captain Algernon F. de Horsey, 4 May 1859) when he decided to try to join the expedition as the "Pioneer's" commander. Recommended to Livingstone by Skead and Maclear, and given permission to go to the Zambezi by Admiral Walker, Burlton met

Livingstone at Shupanga on 1 July 1862, was rejected by Livingstone in a gentle but firm manner, and departed aboard the "Ariel" on 25 July.

76. Christopher Palmer Rigby (1820-1885) was Great Britain's Political Agent in Zanzibar from 24 July 1858 to 6 September 1861. Cf. Mrs. Charles E. B. Russell, General Rigby, Zanzibar and the Slave Trade, etc. London: George Allen & Unwin Ltd., 1935.

77. Paul du Chaillu (1831?-1903) explored equatorial Africa in the region of Gabon in 1856-1859 and again in 1863-1865. He wrote Explorations and Adventures in Equatorial Africa, London: John Murray, 1861, and A Journey to Ashango Land, etc., London: John Murray, 1867.

78. Sir Joseph Dalton Hooker, MD (1817-1911) was a traveler and botanist of the highest rank. A confidante of Darwin's, he was Assistant Director of the Royal Botanical Gardens at Kew from 1855-1865, and Director at Kew from 1865-1885. His greatest work concerned the geographical distribution of plants.

79. John Petherick (1813-1882) explorer of north Africa and HM Consul in the Sudan from 1850 to 1863. I cannot identify the speech.

80. Matthew Fontaine Maury, The Physical Geography of the Sea. London: John Murray, 1859.

81. Bandiera was Portugal's Minister of Marine and Colonies.

82. The "Hetty Ellen," commanded by David Davies, left Glasgow on 19 August 1861, carrying John Reid and the twenty-four pieces of the "Lady Nyassa." At Durban, Mrs. Livingstone, James Stewart (see note 93, p. 82) and George Rae, plus members of the UMCA boarded the ship, which left that port for the Zambezi on 24 December 1861.

83. Commander John Crawford Wilson (1834?-1885, 25 March 1861).

84. D.J. May.

85. When at first Livingstone rejected May's claim, May wrote him again on 26 March 1861, reiterating his demand to be made Second-in-Command of the expedition, and requesting Livingstone to show him any document emanating from the Foreign Office which said that May was to serve in any position other than that which May desired. Having gone this far, May then made his irretrievable mistake, writing ". . . or do you assume to yourself the right to determine my precedence in the expedition at your pleasure?" Right or wrong, May was finished in the expedition from that moment, as Livingstone was not the man to brook such a confrontation from a subordinate. Original in the National Archives of Rhodesia.

86. Young (1831-1896) stayed with Livingstone until the "Pioneer" left the Zambezi in February 1864. In 1867 he led an expedition up the Shire to the

lake to determine whether or not the report of Livingstone's death was true. Although he did not meet Livingstone, he proved beyond a shadow of a doubt that the story was false. Eight years later, in October of 1875, Young commanded the party which placed the first steamer on Lake Nyasa, using a plan similar to that used by Livingstone with the "Lady Nyassa."

87. Apparently Gedye refused to obey an order given by Charles Livingstone (who was then Third-in-Command), and when David returned, Charles reported the insubordination. According to Hardesty, David refused to hear Gedye's side of the story (to many commanders insubordination has only one side), and ". . . took him by the shoulders, and told him to leave the quarterdeck and go forrad." See p. 11 of undated letter which follows fragment of letter written from HMS "Pioneer" in Fernando Po harbor, 27 November 1860, Book Number 6522, Class Number 916.7 HAR, in the Library of Mr. H. F. Oppenheimer, Johannesburg. On 19 February 1862, Stewart wrote in his journal: "I could hardly have credited that Dr. L. would have said "Go forward, you useless trash!" Cf. JPR Wallis, (ed.), The Zambezi Journal of James Stewart, 1862-1863.

London: Chatto & Windus, 1952, p.14. Hardesty goes on to say that when Gedye decided to leave the expedition, David tried to talk him out of it, but Gedye replied that once Dr. L. had pushed him away, he wouldn't stay for 1000 pounds. (Hardesty's letter quoted from by permission of Mrs. S. Loseby, Librarian, Little Brenthurst Library, Johannesburg.)

88. In spite of a great deal of illness, MacLeod was a steady workman and did much with Rae and Reid to put the "Lady Nyassa" together.

89. In his journal entry for 10 April 1862, Livingstone gives his first name as "Joseph." (See Appendix.) Since the journal was written at a later date than this letter, Joseph is probably correct.

90. Dubious reading.

91. João Tavares de Almeida was Governor-General of the province during the entire period of the Zambezi Expedition.

92. Sayyid Majid ibn Said (1835?-1870) was Sultan of Oman and Zanzibar from 1856 to 1870.

93. Stewart (1831-1905) examined prospects for a mission on the Zambezi and Shire rivers until 1 April 1863, when he left the region a very disillusioned man. He returned to this part of Africa slightly over a decade later and founded Livingstonia Mission on the lake.

94. Anne Mackenzie, who brought with her a maid named Sarah Adams, and Jessie Lennox (1831-1933), who in turn is often referred to as being a maid or a schoolteacher. She eventually had a brilliant career as an Army nurse.

95. E[lizabeth?] Mary Burrup, wife of Henry de Wint Burrup, who evidently added a touch of youth and gaiety to the party.
96. On his voyage out to Africa, Proctor met and fell in love with fellow passenger Frances (Fanny) Woodrow. Proctor wanted to take leave of the Shire to marry Fanny in Natal (where she was staying with relatives), but Livingstone was not willing to provide transportation on the rivers. The couple were finally married on 29 March 1864.
97. This statement is revealing: Livingstone's ego was wounded by Mackenzie's making a joke about his pills, and as he did frequently, Livingstone was quick to blame someone else's misfortune on their unwillingness, real or imaginary, to follow Livingstone's advice.
98. Another revealing statement: Mackenzie tried to be "one of the boys," and succeeded in retaining the respect and winning the affection of the men around him; Livingstone, on the other hand, felt that such an attitude was beneath his dignity, and by remaining aloof, opened great gulfs between himself and the original members of the expedition.
99. The reference is to Henry Rowley.
100. Oldfield (see note 12 p.75) was transferred to the "Ariel" on 17 August 1861, when the "Lyra" was ordered back to Portsmouth. He retained this command until 22 April 1862, on which date he was replaced by William Cox Chapman, Commander. Although a Commander by rank, Livingstone is correct in referring to him as "Captain Oldfield," as Oldfield was functioning in a commanding situation. He was promoted to the rank of Captain on 15 April 1862, partially as a result of his impressive record in capturing slave dhows off the East African coast. Cf. The Naval and Military Gazette, 29 November 1862, p.775. For this reference I am grateful to Lt. Commander C. McD. Stuart, R.N. Ret. Although Chapman is listed as replacing Oldfield on 22 April 1862, Oldfield was in fact commanding HMS "Airel" when it visited Livingstone three months later. (See Letter 22.) I cannot explain this discrepancy.
101. Reid (1832-1906) was an excellent workman and proved very popular among the other men, which made him almost unique on the Zambezi Expedition. He was the carpenter who accompanied Livingstone to Bombay in the "Lady Nyassa," and later returned with E. D. Young on the Livingstone Search Expedition of 1867.
102. Henry W. Inglis was Master (22 November 1860) of the "Gorgon." He piloted the "Gorgon" with the "Hetty Ellen" in tow across the bar when they first arrived at the delta.
103. I. e., with no opposing current.
104. On 31 August 1860 Hardesty and the three other officers of the "Pioneer" signed a statement agreeing to serve with the expedition for a period of three years from 1 August 1860. MSS 120.

105. It seems that Livingstone's treatment of Gedye had a negative effect on Hardesty.

106. With the exception of Reid's signature, this entire letter is in Livingstone's hand.

107. Lt. Henry Sewell (27 April 1859) accompanied Wilson, Kirk, and the mission women part of the way up the Shire, and returned when provisions ran low. An extract of his journal kept while on the Zambezi was published anonymously in the Cape Monthly Magazine, vol. XI, (May 1862), pp. 271-80.

108. Nevertheless he did not send Gwillam off at the first opportunity (HMS "Ariel," 25 July), but instead kept him with the expedition until 8 August, when he was transferred to the HMS "Orestes."

109. During his three years with the expedition, Hutchins had many adventures, including participation in the second of the three skirmishes between the mission and the Yao. He served Livingstone well in many capacities, and, like most of the others, finally left due to illness.

110. George Lenox-Conyngham, who at this time was Chief Clerk in the Foreign Office.

111. They were accompanied by Joseph (William?) Goldsmith, who was to be their cook, but he became very ill and proved to be more of a burden than a help.

112. Horace Waller (1833-1896) was Lay Superintendant of the UMCA, and later he edited for publication Livingstone's journals kept on his last journey.

113. William Sunley was HM Consul to the Comoro Islands and had a sugar plantation on Johanna Island. He was very helpful to Livingstone during the latter's four visits to the islands.

114. Senhor Mesquita (known to the expedition's members as "Mosquito") was in charge of the customs house and the handful of soldiers who were on duty there. The house was located on an island between the Kongone and East Luabo branches of the Zambezi delta.

115. John Arrowsmith (1790-1873) was a geographer and charter member of the Royal Geographical Society, who prepared Livingstone's field maps for publication. Of him Livingstone wrote: "Arrowsmith shifted Golungo Alto 9' without the smallest reason--and lifted the Shire East of Morumbala, putting in another river nobody knows in the West. Nothing but hanging will cure such fellows." Cf. Livingstone's Notebook of Astronomical Observations, March - May, 1859, now in the South African Library, Cape Town.

James Macqueen (1778-1870) was also a geographer and had a great

deal of interest in Africa. In 1816 he asserted that the Niger probably had its mouth in the Bights of Benin and Biafra, which was proven correct fifteen years later. These two men were among the host of RGS members whose "armchair" opinions of his explorations were a constant source of irritation to Livingstone.

116. Russell (1792-1878) was Britain's Foreign Secretary from July 1859 to October 1865.

117. Francisco Henrique Ferrao was a merchant and leading citizen of Sena who was always very hospitable to the members of the expedition.

118. Manoel do Lima Vianna was a trader with headquarters just below Shupanga on the opposite (north) bank of the Zambezi. He claimed to have given up slaving long ago as it was unprofitable and bad luck as well.

119. Custodio Jose da Silva, who had been physically rescued by Livingstone when under fire at Mazaro on 1 July 1858.

120. Antonio Tavares de Almeida was appointed Governor of Tete in March 1859, but did not take up residence there until the following year.

121. John Lyons McLeod (? -1893) was in residence as HM Consul to Mozambique from 18 July 1857 to 18 May 1858. He left after having trouble with the Portuguese over, among other things, the French Free Labour Emigration System. (See note 153, p. 88.) Cf. Lyons McLeod, Travels in Eastern Africa, with the Narrative of a Residence in Mosambique. 2 vols. London: Hurst & Blackett, 1860.

122. Belchoir do Nascimento was a Portuguese soldier exiled to the province, who allied himself by marriage to the powerful da Cruz family, which controlled the south bank of the Zambezi between Tete and the Lupata Gorge.

123. See note 55, p. 78.

124. Nuñez was British Vice-Consul at Quillimane, and was Livingstone's agent in that city. As such he handled most of Livingstone's financial affairs.

125. Similar attitudes among others also contributed to the lack of harmony and accomplishment of the expedition, whose members would have done well to follow the example of Mackenzie. He worked when two hands were needed, and didn't carp about class or occupational distinctions. Speaking of Mackenzie to Henry Rowley, the Quartermaster of the "Pioneer" (probably either John Hutchins or David Gwillam) said, while on the Ruvuma in March 1861: ". . . I s'pose the longer we lives, the more we sees. I've seen many things in my day, but what I've seen lately beats everything else hollow, for I never did expect to see a Bishop a-taking out o' anchors, and a-hauling in o' cables. . . ." Frances Awdry, An Elder Sister. London: Bemrose and Sons, 1878, p. 144.

126. Perhaps John Campbell, with whom Livingstone had worked as a boy in Blantyre Works, and in whose company he often wandered around the countryside on days when the mill was closed. Cf. Robert Smiles, David Livingstone. London: Cassell & Co., 1885, pp.5-10.
127. See note 75, p.80.
128. Commander William R. Hobson, 23 August 1861.
129. Karl Klaus von der Decken (1833-1865) explored parts of East Africa in the early 1860s, but lost his life in Somalia after mistreating the local population. His writings were edited and published by Otto Kersten, Reisen in Ost-Afrika, 1859-65, 6 vols. Leipzig und Heidelberg, 1869-1879.
130. William Desborough Cooley (? - 1883) was a master at "armchair geography." In his Inner Africa Laid Open (London: Longman, Brown, Green and Longmans, 1852), he argued that the snow-covered mountains of East Africa reportedly seen by Krapf and Rebmann in 1849 were in fact mythical. He refused to alter his opinion after von der Decken and Thornton visited Kilimanjaro in 1861. In the same work cited, Cooley maintained that the Upper Zambezi lost itself underground in what is today Botswana and that the lower portion of the river was a totally separate unit fed by rainfall. Characteristically he refused to believe much of what Livingstone had to say on the subject.
131. Johann Rebmann was a missionary in the service of the Church Missionary Society who in 1849 reported the existence of Kilimanjaro, which was snow-covered although only 3° south of the Equator. His colleague, Dr. Johann Krapf, reported similarly about Mt. Kenya, which is on the Equator, that same year.
132. John Murray (1808-1892), third of that name and second in the business, which was publisher to the Admiralty and published many works by explorers, including Livingstone.
133. Hooker (1785-1865) was Director of the Royal Botanical Gardens at Kew from 1841 to 1865, and was the father of Sir Joseph Dalton Hooker.
134. Livingstone dismissed Baines for, among other things, misappropriating Government canvas, yet here he requests Washington's aid in doing the same thing, which by now includes the result of the artistic training and expression of another man, and which he intends to use for his own private purposes in the future. The fact that Livingstone saw fit to use Washington's complicity in the matter hardly excuses him of the exact charge he levelled against Baines. In the event, a minimum of five of Baines's works were used to illustrate the Narrative.
135. General Sir Edward Sabine (1788-1883) was a pioneer in the modern

investigation of terrestrial magnetism. From 1858 to 1861 he repeated the magnetical survey of the British Isles. When the work of the Zambezi Expedition was completed, he examined and approved the magnetical observations made by Charles Livingstone.

136. Of the firm H. E. Rutherfoord and Brother.

137. Sir Austin Henry Layard (1817-1894), the excavator of Nineveh, was Undersecretary for Foreign Affairs from 1861 to 1866.

138. Captain Alan Henry Gardner (2 September 1861) was at this time Senior Officer on East Coast patrol, and joined Livingstone on his second trip up the Ruvuma.

139. Charles Collyer and C[harles?] Newell both accompanied Livingstone up the Ruvuma immediately thereafter. Collyer was the "sailor" he took to Bombay in the "Lady Nyassa."

140. Mrs. King was in fact living with another man and subsequently bore his child. Cf. Joseph Whelan to John Washington, 25 August 1863. MSS 120.

141. Rae finally parted with Livingstone on 30 April 1864 in Zanzibar. On 10 October 1865 he married Ann Dalgliesh of Holylee, Selkirkshire, in Glasgow. He died at home the following day of a chronic stomach ulcer. Although he was to go into business with William Sunley on the latter's sugar plantation, this did not work out, and at the time of his death he was associated with Smith, Fleming & Co., Zanzibar.

142. Abraham Pearce was a Quartermaster of the "Pioneer." He suffered badly from disease during most of his time with the expedition, and died at Quilimane on 4 June 1863 while en route home with Kirk, Charles Livingstone, and a small group of Britons.

143. For further details, see George Shepperson's edition of Livingstone's field notebook in David Livingstone and the Rovuma, Edinburgh: the University Press, 1965.

144. William Saunders was Carpenter's Mate of the "Pioneer."

145. Robert Moffat (1795-1883), pioneer missionary at Kuruman, north of the Orange River, was Livingstone's father-in-law.

146. Mzilikazi (1790?-1868) was leader of the Khumalo branch of the Zulu, who led his people out of KwaZulu in 1822, eventually settling them north of the Limpopo River in 1837. During their migrations they adopted the name "Matabele" (Ndebele).

147. John Smith Moffat (1835-1918) received financial support from Livingstone for the purpose of founding a mission among the Ndebele. Work began very late in 1859 at Nyati, roughly 45 miles north of the present site of Bulawayo, Rhodesia.

148. The Civil Commissioner ("magistrate") who wrote Livingstone was John Burnet. The party of men, all aged between 25 and 32 years, was led by John Jehan. I have seen no evidence indicating that the settlement was actually begun; and upon learning of the recall of the expedition, they probably made other plans.

149. On 11 January 1863 the "Pioneer" was towing the "Lady Nyassa" astern, when, just a few miles upriver from Shupanga, the vessels collided, causing some damage to both. For this reason the vessels were tied side by side for the rest of the trip upriver.

150. From 17 to 25 October 1859, Kirk and Rae made a trip overland to Tete from the cataracts of the Shire. They made the trip to examine the possessions of Thomas Baines for signs of theft, and also to get materials to repair the hull and a funnel of the "MaRobert." It was a gruelling trip; nevertheless, the people of Tete later followed their path in reverse to get slaves from the Shire valley.

151. Paul Mariano, second of that name, was a slave trader who had his own private army and stronghold at Shamo, two miles from the mouth of the Shire. From this position he could easily have kept Livingstone out of the Shire valley. Often at odds with the local government, it was he whom the Portuguese were fighting when Livingstone rescued da Silva. (See note 119, p. 85.)

152. Henry John Temple, third Viscount Palmerston (1784-1865) was Prime Minister of Great Britain from 30 June 1859 until his death on 18 October 1865. As Palmerston was committed to the eradication of the slave trade, he and Livingstone thought very well of each other.

153. The Free Labour Emigration Scheme functioned as follows: Arab and Portuguese traders supplied French vessels with African "volunteers" to work on the sugar plantations of Bourbon (Réunion) Island. The Africans were forced to sign an agreement that they wished to work on the island for a specific number of years.

154. John Leighton Wilson, Western Africa: Its History, Condition and Prospects. New York: Harper & Brothers, 1856.

155. Edward B. Pusey (1800-1882) was a controversial theologian and a leader of the Oxford Movement within the Church of England. At a public meeting he condemned the men of the UMCA for firing on the Yao under any circumstances, as he believed that even self-defense by missionaries was morally indefensible.

156. Henry Scudamore (? - 1 January 1863) was the most gentle and beloved among his fellows of the members of the UMCA. It was immediately upon learning of his death that James Stewart condemned Livingstone and hurled his personal copy of Livingstone's Missionary Travels, etc. into the Zambezi.

157. John Gillon & Co., Preserved Provision Manufacturers, 3 Mitchell Street, Leith.
158. Abraham Pearce.
159. At this time, Charles Collyer, James King, Thomas Magrath, Charles (?) Newell, Abraham Pearce, John Pennel, William Saunders, Thomas Ward, and Richard Wilson were with Livingstone. I cannot account for his failing to mention them here.
160. W.V. Read was a Naval Assistant in Washington's department.
161. This letter is now in the Royal Geographical Society, London. I regret that publication of this letter at this time was not possible.
162. Captain George Henry Richards (1820-1896) was Hydrographer from 1864 to 1874, and eventually reached the rank of Vice-Admiral.
163. The "Ariel" was captained by Commander William Cox Chapman, 22 April 1862. Alan Gardner still commanded the "Orestes."
164. Captain Charles C. Forsyth, 13 April 1863.

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